A.I.A. File No. 30c

KEWANEE

Steel BOILERS

GENERAL CATALOG 80

KEWANEE BOILER CORPORATION

KEWANEE, ILLINOIS

80L Edition

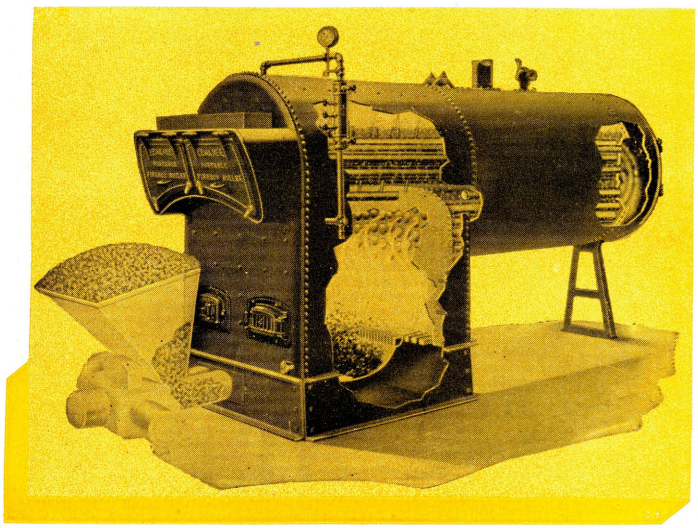
A.I.A. File No. 30c

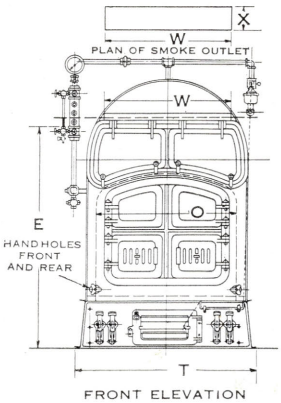
KEWANEE Up-Draft Firebox Boiler

"500" Series For Coal

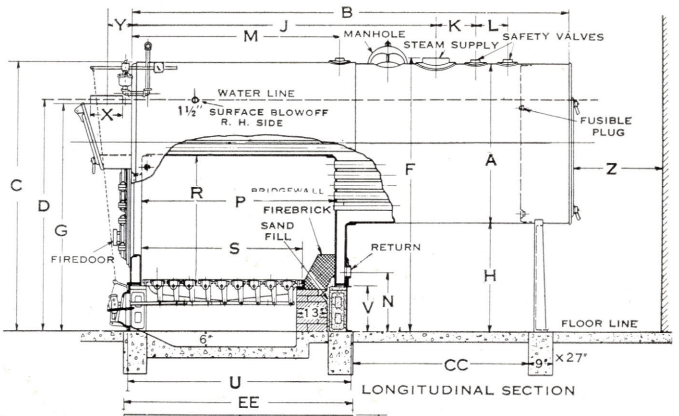
The high-class workmanship on Kewanee Boilers is proverbial in the Trade and in the Architectural profession. This "500" series reflects the best Kewanee practice based on generations of continuous experience.

"500" Series
Riveted Up-Draft Firebox Boiler
With Two-Pass Three Inch Tubes

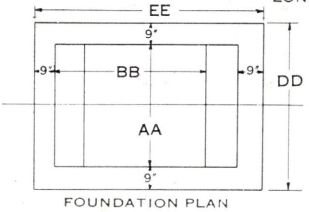




FRONT ELEVATION



LONGITUDINAL SECTION



FOUNDATION PLAN

FOOTINGS MAY BE REQUIRED UNDER BASE CORNER POSTS DEPENDING ON SOIL CONDITIONS

Steam Supply and Safety Valve located nearer front on 581-2-3-4 and 7. 580 Steam Supply only in front.

"500" series conforms to the A.S.M.E. boiler code for construction 15 lbs., and for rating with the S.H.B.I. simplified practice recommendation. Also built for 100-150 lb. pressures.

Equipment—Steel base assembled with cast iron ash pit front and four cast iron corner posts; heavy rocking or dumping grates; backstand, fire and flue doors. Manhole furnished on No. 580 and larger. No fire brick furnished. Bridgewall omitted 576-581

Firing Tools—Hoe, poker, slice bar, flue cleaner and handle.

Trimmings for Steam Only—Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks, damper regulator.

For Cut-away View "500" Series Hand-Fired Coal, see page 24.

Specifications and Setting Measurements

Boiler Number	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590
Rating—Steam Radiation ..... Sq. Ft.	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation ..... Sq. Ft.	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu. per Hour ..... 1000's	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.) ... Sq. Ft.	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.) ..... Sq. Ft.	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter ..... In.	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter ..... In.	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height ..... Ft.	55	60	55	60	60	65	60	70	70	80	80	85	95	100	110
Breeching Diameter, Two Boilers ... In.	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers ..... In.	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers ..... Ft.	65	70	65	70	70	75	70	80	80	90	90	95	105	110	120
Steam Supply Size ..... In.	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size ..... In.	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size ..... In.	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2-3	2–3
Shipping Weight ..... Lb.	6100	6700	7300	7900	9000	10000	11500	13000	15200	17300	19300	21200	25000	28400	31700
A—Boiler Diameter ..... In.	42	42	48	48	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length ..... Ft. In.	8–7	9–6½	8–10	9–6½	9–2½	10–6	11–1	12–9	12–10	14–9	14–9	14–9	17–7½	17–9½	20–0½
C—Boiler Height Overall ..... In.	80	80	86	86	94	94	101	101	107	107	113	115	115	125	125
D—Water Line ..... In.	70	70	73	73	79½	79½	84½	84½	89½	89½	94	96½	96½	105	105
E—Water Column Height ..... In.	68	68	71	71	77½	77½	82½	82½	87½	87½	92	94½	94½	103	103
F—Steam Supply Height ..... In.	82	82	88	88	96	96	103	103	109	109	115	117	117	127½	127½
G—Breeching Connection Height ... In.	70	70	74½	74½	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height ..... In.	38	38	38	38	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location ..... Ft. In.	6–0	6–6	6–0	6–6	2–6	2–6	3–0	3–0	3–0	11–0	11–0	3–0	12–4	12–4	13–0
K—Safety Valve Location ..... In.	14	15	14	15	60	16	16	16	16	16	15	16	18	18	18
L—Safety Valve Location ..... In.	.....	.....	.....	.....	.....	.....	.....	.....	12	.....	.....	12	12	12	12
M—Safety Valve Location ..... Ft. In	.....	.....	.....	.....	.....	.....	.....	.....	.....	7–6	7–6	.....	.....	.....	.....
N—Return Height ..... In.	19	19	19	19	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width ..... In.	36	36	42	42	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length ..... In.	50	50	50	50	50	56	72	82	82	86	86	90	102	102	108
R—Firebox Height ..... In.	41½	41½	44	44	49	49	49	49	52	52	54½	55	55	57	57
S—Grate Length ..... In.	50	50	50	50	50	56	61	61	67	73	73	67	79	79	85
T—Base Width ..... In.	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84	90½	90½
U—Base Length ..... In.	59½	59½	60	60	60	66	83	93	93	97	97	101½	113½	113½	119½
V—Base Height ..... In.	14	14	14	14	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length ... In.	32	32	34	34	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width .... In.	9	9	11	11	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location .. In.	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance ..... In.	42	42	48	48	30	30	33	33	36	36	39	42	42	45	45
AA—Ash Pit Width ..... In.	36	36	42	42	47½	47½	52½	52½	58½	58½	64	70	70	76	76
BB—Ash Pit Length ..... In.	42½	42½	43	43	43	49	56	56	62	68	68	62	74	74	80
CC—Rear Stand Location ..... In.	33	44	36	44	39	48	36	46	48	66	66	62	82	80	84
DD—Foundation Width ..... In.	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88	94	94
EE—Foundation Length ..... In.	60½	60½	61	61	61	67	84	94	94	98	98	102½	114½	114½	120½
Number of Common Brick	.....	No B	ridgew	all Req	uired	.....	185	185	200	200	220	240	240	315	315
Number of Fire Brick	.....	No B	ridgew	all Req	uired	.....	48	95	80	60	68	150	150	160	160
*Outside Surface to Cover ..... Sq. Ft.	115	125	130	140	155	170	195	225	245	280	295	310	365	400	450

*Front smokebox and front head below smokebox NOT included.

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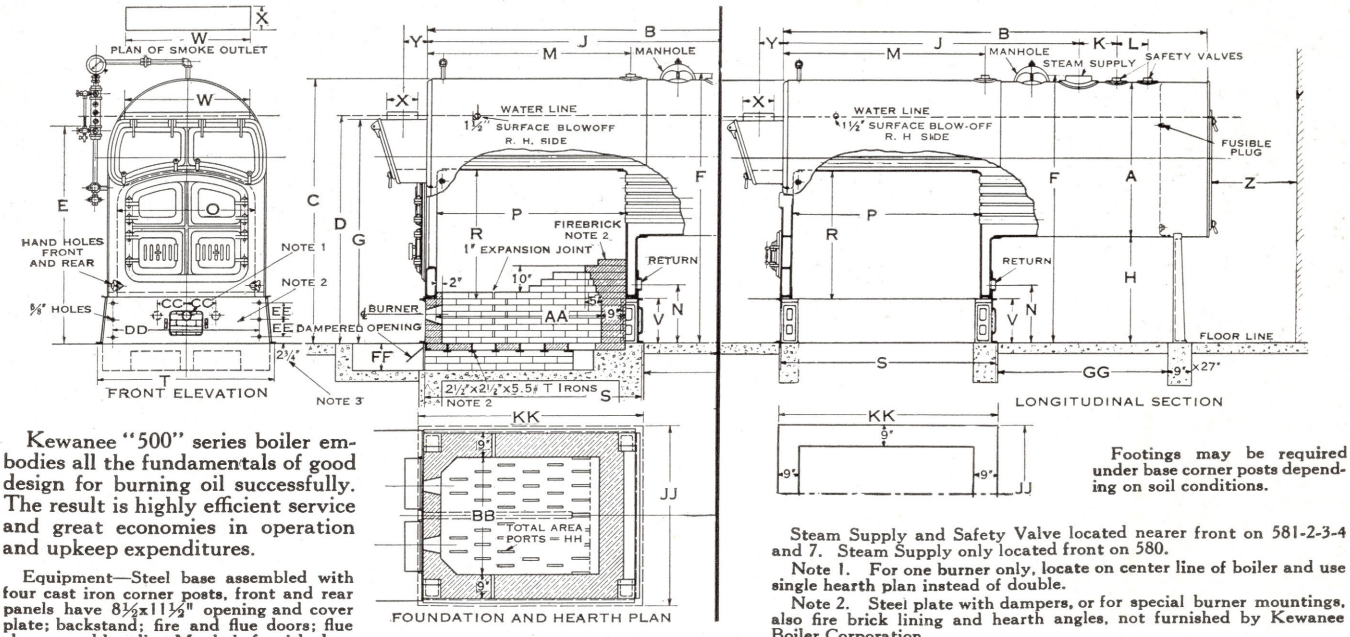
KEWANEE Up-Draft Firebox Boiler "500" Series For Oil, Gas or Stoker



Kewanee "500" series boiler embodies all the fundamentals of good design for burning oil successfully. The result is highly efficient service and great economies in operation and upkeep expenditures.

Equipment—Steel base assembled with four cast iron corner posts, front and rear panels have 8½x11½" opening and cover plate; backstand; fire and flue doors; flue cleaner and handle. Manhole furnished on No. 580 and larger.

Trimmings for Steam Only — Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks.

Cut-away View "500" Series Oil, Gas like "400" Series P. 24.

Footings may be required under base corner posts depending on soil conditions.

Steam Supply and Safety Valve located nearer front on 581-2-3-4 and 7. Steam Supply only located front on 580.

Note 1. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Note 2. Steel plate with dampers, or for special burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. This dimension 1¾" on No. 576-581 inclusive.

Note 4. Average Firebox Height is computed by dividing the firebox volume by the plan area. On stoker fired boilers 585 to 590 additional furnace height and volume for S.H.B.I. standard may be provided in base V, raising water line D same amount, also heights C-E-G-F-N-H. Or extended water leg may be ordered and two firedoors.

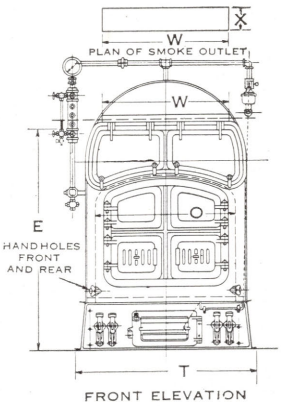
Specifications and Setting Measurements

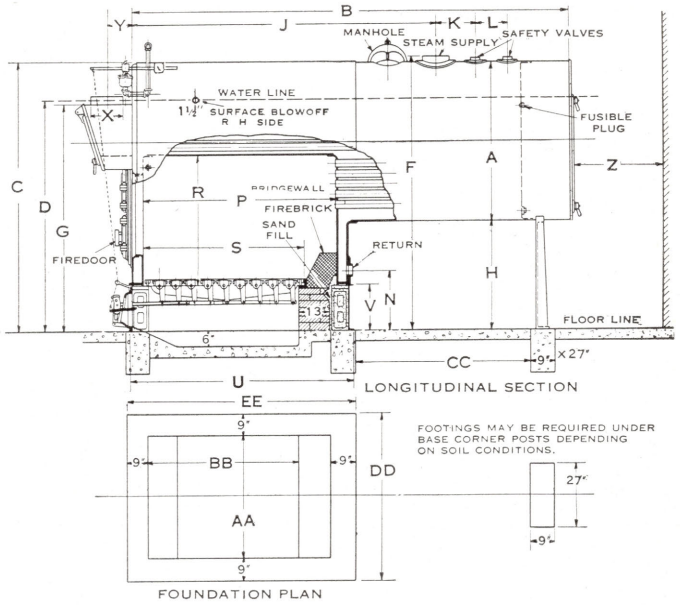
Boiler Number	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590
Rating—Steam Radiation Sq. Ft.	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation Sq. Ft.	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour 1000's	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.) Sq. Ft.	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu. Ft.	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Net Furnace Volume, Oil-Gas Cu. Ft.	44.3	44.3	54.8	54.8	70.0	79.4	119.6	137.5	162.2	170.7	198.2	228.3	260.8	304.4	323.3
Firebox Volume above Mud Ring. Cu. Ft.	39.6	39.6	48.5	48.5	62.1	69.6	97.0	110.4	130.9	137.2	160.2	183.2	207.8	231.9	245.5
Average Firebox Height (See Note 4). In.	37.6	37.6	39.3	39.3	44.4	44.4	43.8	43.8	46.6	46.6	49.4	49.5	49.5	51.0	51.0
Added FurnaceHgt.forStoker(SHBI) In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	5	7	12	15	20
Hi-Firebox Volume. Cu. Ft.	.....	.....	.....	.....	.....	.....	.....	.....	.....	151.9	176.4	209.2	258.2	300.2	341.9
Plan Area Sq. Ft.	12.6	12.6	14.8	14.8	16.8	18.8	26.6	30.3	33.7	35.3	38.9	44.5	50.4	54.6	57.8
Breeching Diameter In.	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In.	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft.	45	50	45	50	45	50	50	60	60	70	70	70	85	90	105
Breeching Diameter, Two Boilers In.	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers. In.	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft.	55	60	55	60	55	60	60	70	70	80	80	80	95	100	115
Steam Supply Size In.	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lbs.	5500	6100	6600	7100	8100	9000	10400	11800	13700	15700	17600	19300	23000	26300	29400
A—Boiler Diameter In.	42	42	48	48	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length Ft. In.	8–7	9–6½	8–10	9–6½	9–2½	10–6	11–1	12–9	12–10	14–9	14–9	14–9	17–7½	17–9½	20–0½
C—Boiler Height Overall In.	80	80	86	86	94	94	101	101	107	107	113	115	115	125	125
D—Water Line In.	70	70	73	73	79½	79½	84½	84½	89½	89½	94	96½	96½	105	105
E—Water Column Height In.	68	68	71	71	77½	77½	82½	82½	87½	87½	92	94½	94½	103	103
F—Steam Supply Height In.	82	82	88	88	96	96	103	103	109	109	115	117	117	127½	127½
G—Breeching Connection Height In.	70	70	74½	74½	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height In.	38	38	38	38	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location Ft. In.	6–0	6–6	6–0	6–6	2–6	2–6	3–0	3–0	3–0	11–0	11–0	3–0	12–4	12–4	13–0
K—Safety Valve Location In.	14	15	14	15	60	16	16	16	16	16	15	16	18	18	18
L—Safety Valve Location In.	.....	.....	.....	.....	.....	.....	.....	.....	12	.....	.....	12	12	12	12
M—Safety Valve Location Ft. In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	7–6	7–6	.....	.....	.....	.....
N—Return Height In.	19	19	19	19	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width In.	36	36	42	42	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length In.	50	50	50	50	50	56	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	41½	41½	44	44	49	49	49	49	52	52	54½	55	55	57	57
S—Base Length In.	59½	59½	60	60	60	66	83	93	93	97	97	101½	113½	113½	119½
T—Base Width In.	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84	90½	90½
V—Base Height In.	14	14	14	14	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length In.	32	32	34	34	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width In.	9	9	11	11	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location In.	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance In.	42	42	48	48	30	30	33	33	36	36	39	42	42	45	45
AA—Furnace Length In.	41	41	41	41	41	47	63	73	73	77	77	81	93	93	99
BB—Furnace Width In.	24	24	30	30	36	36	42	42	48	48	54	60	60	66	66
CC—Burners Location In.	.....	.....	.....	.....	8½	8½	9½	9½	11	11	12½	14	14	15	15
DD—Bolt Centers in Plate. In.	37½	37½	43½	43½	49½	49½	55½	55½	61½	61½	67½	73½	73½	79½	79½
EE—Bolt Centers in Plate. In.	4¾	4¾	4¾	4¾	4¾	4¾	5¾	5¾	5¾	5¾	5¾	5¾	5¾	7¾	7¾
FF—Pit Depth In.	9	9	9	9	10	10	10	10	10	11	11	12	12	13	13
GG—Rear Stand Location In.	33	44	36	44	39	48	36	46	48	66	66	62	82	80	84
HH—Total Area Ports or Opgs. Sq. In.	64	73	83	92	110	127	155	182	230	273	320	365	455	545	640
JJ—Foundation Width In.	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88	94	94
KK—Foundation Length In.	60½	60½	61	61	61	67	84	94	94	98	98	102½	114½	114½	120½
Size of Dampered Opening In.	6x11	6x12	6x14	6x16	7x16	7x18	7x22	7x26	2–7x16	2–8x17	2–8x20	2–9x20	2–9x25	2–10x27	2–10x32
Number of Fire Brick	330	330	365	365	395	420	575	625	660	680	715	780	835	990	1020
*Outside Surface to Cover Sq. Ft.	115	125	130	140	155	170	195	225	245	280	295	310	365	400	450

*Front smokebox and front head below smokebox NOT included.

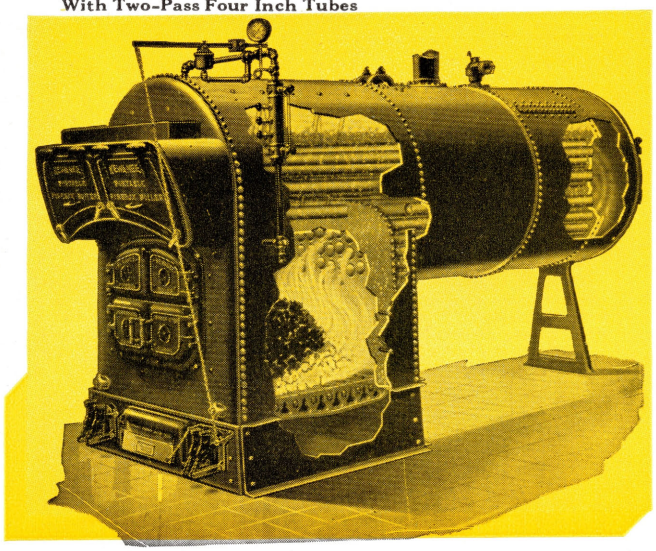
KEWANEE Up-Draft Firebox Boiler
"400" Series For Coal

Kewanee firebox boilers are soundly constructed. Every seam is made tight at the factory. They go into the building in one piece and need no brick setting. The "400" up-draft series is correct in design so any kind of fuel is burned with the utmost economy in practice.





"400" Series
Riveted Up-Draft Firebox Boiler
With Two-Pass Four Inch Tubes



"400" Series conforms to the A.S.M.E. boiler code for construction 15 lbs., and for rating with the S.H.B.I. simplified practice recommendation. Also built for High Pressures 100-125-150 lbs.

Equipment—Steel base assembled with cast iron ash pit front and four cast iron corner posts; heavy rocking or dumping grates; backstand, fire and flue doors. Bridgewall omitted 480, 481.

Manhole furnished on all sizes. No fire brick furnished.

Firing Tools—Hoe, poker, slice bar, flue cleaner and handle.

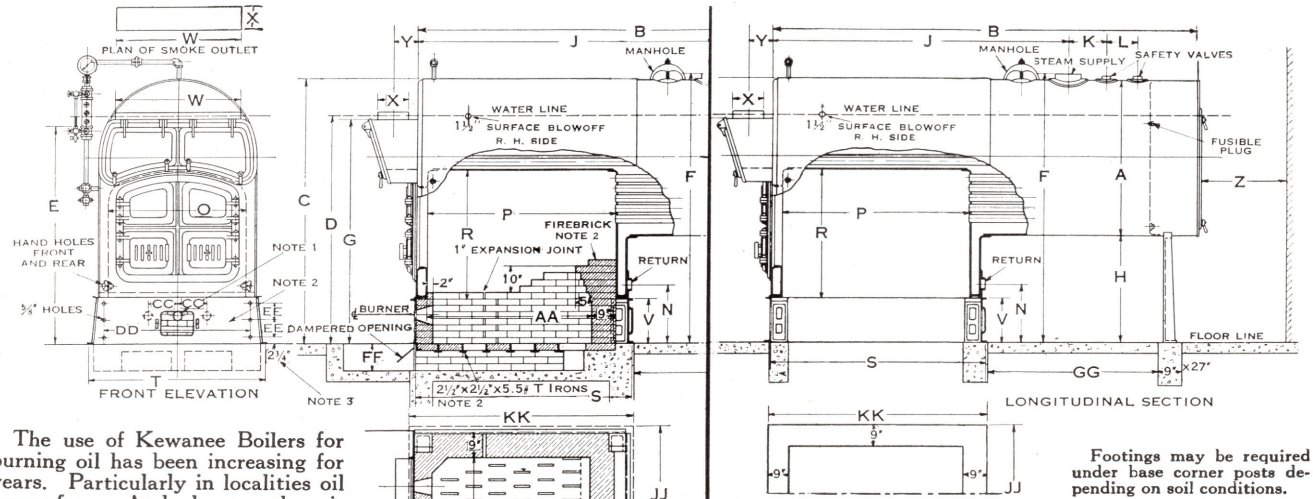
Trimmings for Steam Only—Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks; damper regulator.

Specifications and Setting Measurements

Boiler Number	480	481	482	483	484	485	486	487	488	489	490
Rating—Steam Radiation Sq. Ft.	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation Sq. Ft.	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu. per Hour 1000's	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.) Sq. Ft.	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.) Sq. Ft.	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter In.	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In.	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft.	60	65	60	70	70	80	80	85	95	100	110
Breeching Diameter, Two Boilers In.	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	28	29	32	34	37	38	41	44	47	50	52
Stack Height Two Boilers Ft.	70	75	70	80	80	90	90	95	105	110	120
Steam Supply Size In.	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lbs.	10200	11400	13300	14800	17300	19700	22000	24200	28400	32300	36100
A—Boiler Diameter In.	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length Ft. In.	11–5	13–1½	13–4½	15–5½	15–6½	18–0½	17–0	17–7½	21–3½	20–7	23–4
C—Boiler Height Overall In.	94	94	101	101	107	107	113	115	115	125	125
D—Water Line In.	78	78	85	85	88½	88½	94½	95	95	107½	107½
E—Water Column Height In.	76	76	83	83	86½	86½	92½	93	93	105½	105½
F—Steam Supply Height In.	96	96	103	103	109	109	115	117	117	127½	127½
G—Breeching Connection Height In.	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height In.	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location Ft. In.	8–0	9–0	10–0	10–9	11–0	11–6	11–6	12–0	13–9	13–6	14–0
K—Safety Valve Location In.	15	15	15	16	18	21	18	21	28	28	42
L—Safety Valve Location In.					12	12	12	12	12	12	12
N—Return Height In.	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width In.	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length In.	50	56	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	49	49	49	49	52	52	54½	55	55	57	57
S—Grate Length In.	50	56	61	61	67	73	73	67	79	79	85
T—Base Width In.	59½	59½	66	66	72	72	78	84	84	90½	90½
U—Base Length In.	60	66	83	93	93	97	97	101½	113½	113½	119½
V—Base Height In.	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length In.	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width In.	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location In.	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance In.	30	30	33	33	36	36	39	42	42	45	45
AA—Ash Pit Width In.	47½	47½	52½	52½	58½	58½	64	70	70	76	76
BB—Ash Pit Length In.	43	49	56	56	62	68	68	62	74	74	80
CC—Rear Stand Location In.	64	78	63	76	78	86	92	92	106	96	120
DD—Foundation Width In.	65½	65½	70½	70½	76½	76½	82	88	88	94	94
EE—Foundation Length In.	61	67	84	94	94	98	98	102½	114½	114½	120½
Number of Common Brick	No Bridgewall Required		185	185	200	200	220	240	240	315	315
Number of Fire Brick			48	95	80	60	68	150	150	160	160
*Outside Surface to Cover Sq. Ft.	185	210	235	275	290	335	345	375	450	465	520

*Front smokebox and front head below smokebox NOT included.

KEWANEE Up-draft Firebox Boiler "400" Series For Oil, Gas or Stoker



The use of Kewanee Boilers for burning oil has been increasing for years. Particularly in localities oil comes from. And wherever there is most experience with oil fuel, the good Kewanee steaming qualities are appreciated.

Equipment—Steel base assembled with four cast iron corner posts, front and rear panels have 8½x11½" opening and cover plate; backstand; fire and flue doors; flue cleaner and handle. Manhole furnished on all sizes.

Trimmings for Steam Only—Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks.

For Cut-away View "400" Series Oil-Gas, see page 24. And for Stoker, Similar to page 2.

Footings may be required under base corner posts depending on soil conditions.

Note 1. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Note 2. Steel plate with dampers, or for special burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. This dimension 1¾" on No. 480 and 481.

Note 4. Average Firebox Height is computed by dividing the firebox volume by the plan area. On stoker fired boilers 485 to 490 additional furnace height and volume for S.H.B.I. standard may be provided in base V, raising water line D same amount, also heights C-E-G-F-N-H. Or extended water leg may be ordered and two firedoors.

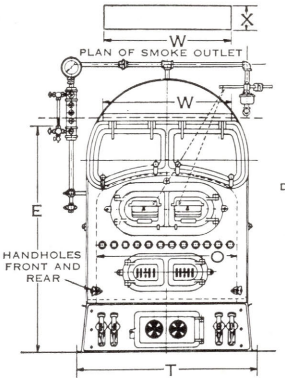
Specifications and Setting Measurements

Boiler Number	480	481	482	483	484	485	486	487	488	489	490
Rating—Steam Radiation Sq. Ft.	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation Sq. Ft.	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour 1000's	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBImin.) Sq. Ft.	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu. Ft.	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Net Furnace Volume, Oil-Gas Cu. Ft.	70.0	79 4	119.6	137.5	162.2	170.7	198.2	228.3	260.8	304 4	323.3
Firebox Volume Above Mud Ring Cu. Ft.	62.1	69.6	97.0	110.4	130.9	137.2	160.2	183.2	207.8	231.9	245.5
Average Firebox Height (See Note 4) In.	44.4	44.4	43.8	43.8	46.6	46.6	49.4	49.5	49.5	51.0	51.0
Added Furnace Height, for Stoker (SHB1) In.	.....	.....	.....	.....	.....	5	5	7	12	15	20
Hi-Firebox Volume Cu. Ft.	.....	.....	.....	.....	.....	151.9	176.4	209.2	258.2	300.2	341.9
Plan Area Sq. Ft.	16.8	18.8	26.6	30.3	33.7	35.3	38.9	44.5	50.4	54.6	57.8
Breeching Diameter In.	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In.	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft.	45	55	50	60	60	70	70	70	85	85	100
Breeching Diameter, Two Boilers In.	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft.	55	65	60	70	70	80	80	80	95	95	110
Steam Supply Size In.	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lb.	9300	10400	12200	13600	15800	18100	20300	22300	26400	30200	33800
A—Boiler Diameter In.	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length Ft. In.	11–5	13–1½	13–4½	15–5½	15–6½	18–0½	17–0	17–7½	21–3½	20–7	23–4
C—Boiler Height Overall In.	94	94	101	101	107	107	113	115	115	125	125
D—Water Line In.	78	78	85	85	88½	88½	94½	95	95	107½	107½
E—Water Column Height In.	76	76	83	83	86½	86½	92½	93	93	105½	105½
F—Steam Supply Height In.	96	96	103	103	109	109	115	117	117	127½	127½
G—Breeching Connection Height In.	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height In.	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location Ft. In.	8–0	9–0	10–0	10–9	11–0	11–6	11–6	12–0	13–9	13–6	14–0
K—Safety Valve Location In.	15	15	15	16	18	21	18	21	28	28	42
L—Safety Valve Location In.	.....	.....	.....	.....	12	12	12	12	12	12	12
N—Return Height In.	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width In.	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length In.	50	56	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	49	49	49	49	52	52	54½	55	55	57	57
S—Base Length In.	60	66	83	93	93	97	97	101½	113½	113½	119½
T—Base Width In.	59½	59½	66	66	72	72	78	84	84	90½	90½
V—Base Height In.	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length In.	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width In.	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location In.	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance In.	30	30	33	33	36	36	39	42	42	45	45
AA—Furnace Length In.	41	47	63	73	73	77	77	81	93	93	99
BB—Furnace Width In.	36	36	42	42	48	48	54	60	60	66	66
CC—Burners Location In.	8½	8½	9½	9½	11	11	12½	14	14	15	15
DD—Bolt Centers in Plate In.	49½	49½	55½	55½	61½	61½	67½	73½	73½	79½	79½
EE—Bolt Centers in Plate In.	4¾	4¾	5¾	5¾	5¾	5¾	5¾	5¾	5¾	7¾	7¾
FF—Pit Depth In.	10	10	10	10	10	11	11	12	12	13	13
GG—Rear Stand Location In.	64	78	63	76	78	86	92	92	106	96	120
HH—Total Area Ports or Openings Sq. In.	110	127	155	182	230	273	320	365	455	545	640
JJ—Foundation Width In.	65½	65½	70½	70½	76½	76½	82	88	88	94	94
KK—Foundation Length In.	61	67	84	94	94	98	98	102½	114½	114½	120½
Size of Dampered Opening In.	7x16	7x18	7x22	7x26	2–7x16	2–8x17	2–8x20	2–9x20	2–9x25	2–10x27	2–10x32
Number of Fire Brick	395	420	575	625	660	680	715	780	835	990	1020
*Outside Surface to Cover Sq. Ft.	185	210	235	275	290	335	345	375	450	465	520

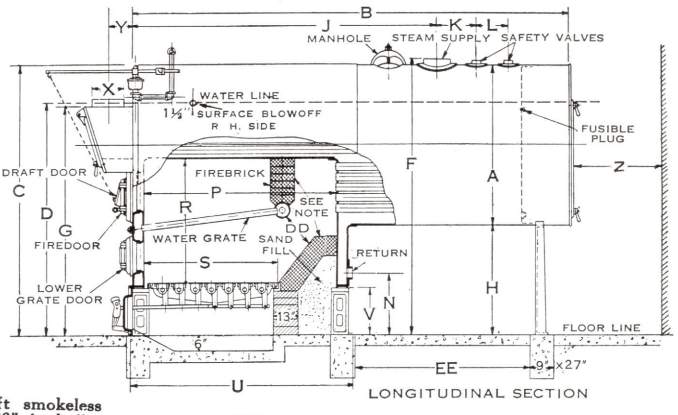
*Front smokebox and front head below smokebox NOT included.

KEWANEE Down-Draft Smokeless Firebox Boiler "300" Series For Coal

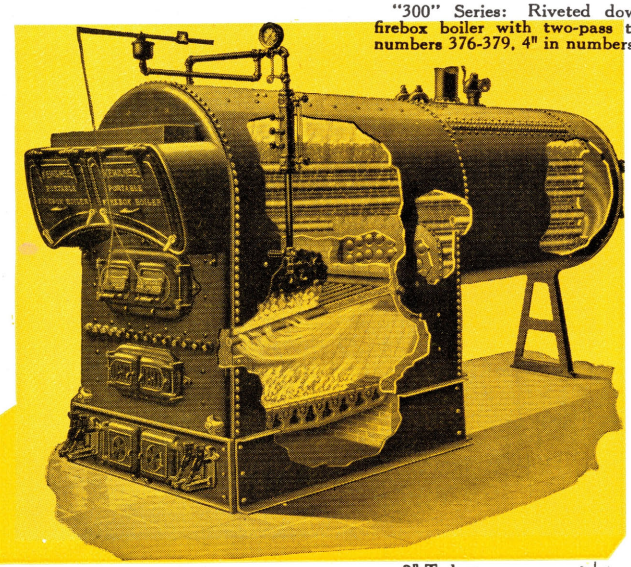
The Kewanee Smokeless Portable Firebox Heating Boilers are built of riveted steel. Any hand-fired coal is burnt smokelessly and with unequalled economy. The large water content is kept in more rapid circulation by the water grate.



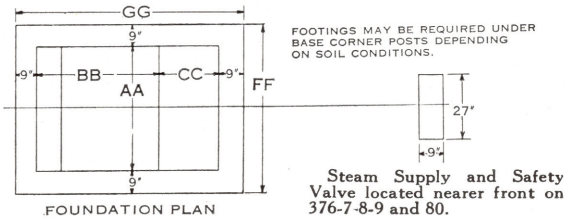
FRONT ELEVATION



LONGITUDINAL SECTION



"300" Series: Riveted down-draft smokeless firebox boiler with two-pass tubes; "3" in boiler numbers 376-379, 4" in numbers 380-390.



FOUNDATION PLAN

Steam Supply and Safety Valve located nearer front on 376-7-8-9 and 80.

"300" Series conforms to the A.S.M.E. Boiler Code for construction 15 lbs., and for rating with the S.H.B.I. simplified practice recommendation. Also built for High Pressures 100-125-150 lbs. steam.

Equipment: Steel base assembled with cast iron ash pit front and four cast iron corner posts; heavy rocking grates, backstand except 376-379; fire grate and flue doors. Manhole furnished 380 and larger.

Note—No fire brick furnished for bridgewall or header except special tile first course on drum.

Firing Tools: Hoe, poker, slice bar, flue and tube cleaners with handles, socket wrench.

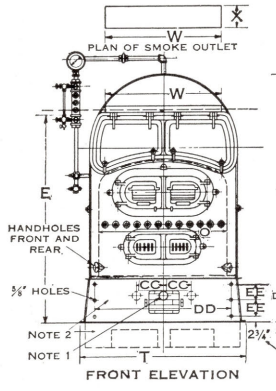
Trimmings for Steam Only: Safety valve, steam gauge with syphon and cock; water column with water gauge, glass and cocks; damper regulator.

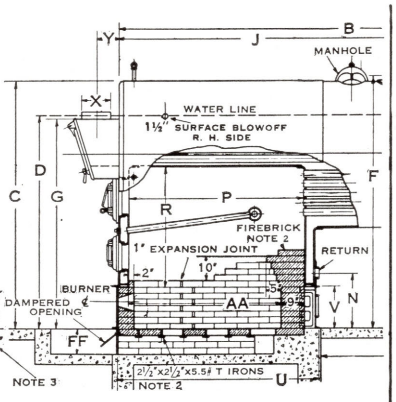
Specifications and Setting Measurements

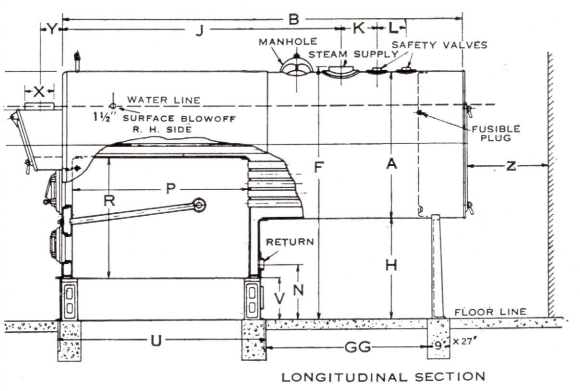
	3" Tubes				4" Tubes										
Boiler Number	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390
Rating—Steam Radiation...Sq. Ft.	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation...Sq. Ft.	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu. per Hour...1000's	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.)...Sq. Ft.	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.)...Sq. Ft.	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter...In.	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter...In.	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height...Ft.	55	60	55	60	60	65	60	70	70	80	80	85	95	100	110
Breeching Diameter, Two Boilers...In.	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers...In.	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers...Ft.	65	70	65	70	70	75	70	80	80	90	90	95	105	110	120
Steam Supply Size...In.	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size...In.	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size...In.	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight...Lb.	6800	7500	8100	8800	10000	11100	13600	15300	18000	20500	22900	25100	29500	33600	37500
A—Boiler Diameter...In.	42	42	48	48	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length...Ft. In.	8–3	9–3	8–7½	9–5	11–2½	12–11	12–8½	14–9	14–11	17–4	16–5	17–0½	20–7½	19–11	22–8
C—Boiler Height Overall...In.	80	80	86	86	94	94	101	101	107	107	113	115	115	125	125
D—Water Line...In.	70	70	73	73	78	78	85	85	88½	88½	94½	95	95	107½	107½
E—Water Column Height...In.	68	68	71	71	76	76	83	83	86½	86½	92½	93	93	105½	105½
F—Steam Supply Height...In.	82	82	88	88	96	96	103	103	109	109	115	117	117	127½	127½
G—Breeching Connection Height...In.	70	70	74½	74½	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height...In.	38	38	38	38	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location...Ft. In.	1–10	2–0	1–10	2–0	2–0	9–8	9–8	10–6	10–8	11–6	11–6	11–8	13–4	13–2	14–0
K—Safety Valve Location...In.	16	16	16	16	16	15	14	15	15	21	18	21	28	26	36
L—Safety Valve Location...In.	.....	.....	.....	.....	.....	.....	.....	.....	12	12	12	12	12	12	12
N—Return Height...In.	19	19	19	19	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width...In.	36	36	42	42	48	48	53	53	5	59	65	71	71	77	77
P—Firebox Length...In.	62	64	62	64	64	72	72	82	82	86	86	90	102	102	108
R—Firebox Height...In.	41½	41½	44	44	49	49	49	49	52	52	54½	55	55	57	57
S—Grate Length...In.	37	43	37	43	43	49	49	55	55	61	61	61	67	67	73
T—Base Width...In.	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84	90½	90½
U—Base Length...In.	71½	73½	72	74	74	82	83	93	93	97	97	101½	113½	113½	119½
V—Base Height...In.	14	14	14	14	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length...In.	32	32	34	34	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width...In.	9	9	11	11	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location...In.	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance...In.	42	42	48	48	30	30	33	33	36	36	39	42	42	45	45
AA—Ash Pit Width...In.	36	36	42	42	47½	47½	52½	52½	58½	58½	64	70	70	76	76
BB—Ash Pit Length...In.	31	37	31	37	37	43	44	50	50	56	56	56	62	62	68
CC—Bridgewall to Rear Wall...In.	23½	19½	24	20	20	22	22	26	26	24	24	28½	34½	34½	34½
DD—Header to Bridgewall...In.	10	11	10	11	11	12	12	13	14	15	15	15	17	17	19
EE—Rear Stand Location...In.	.....	.....	.....	.....	44	57	54	66	69	94	82	82	96	96	114
FF—Foundation Width...In.	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88	94	94
GG—Foundation Length...In.	72½	74½	73	75	75	83	84	94	94	98	98	102½	114½	114½	120½
Number of Common Brick	135	135	155	155	175	175	185	185	200	200	220	240	240	315	315
Number of Fire Brick	110	110	125	125	160	160	170	185	210	210	235	290	315	350	350
*Outside Surface to Cover...Sq. Ft.	110	120	130	140	185	210	220	255	280	320	330	360	435	450	510

*Front smokebox and front head below smokebox NOT included.

KEWANEE Down-Draft Firebox Boiler "300" Series For Oil, Gas or Stoker







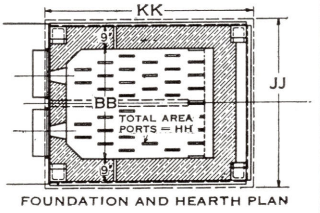
All the extreme heat of burning oil is developed and absorbed in "300" Series. Even heaviest loadings are carried with a steady water line.

Equipment: Steel base assembled with four cast iron copper posts, front and rear panels have 8½ x 11½" opening and cover plate; backstand except 376-379; fire, grate and flue doors.

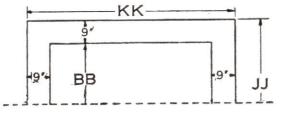
Also flue and tube cleaners with handles, socket wrench.

Manhole furnished on boiler numbers 380 and larger.

Trimmings for Steam only: Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks.



For Cut-away View "300" Series Oil or Gas, see page 24.



Footings may be required under base corner posts depending on soil conditions.

Steam Supply and Safety Valve located nearer front on 376-7-8-9 and 380.

Note 1. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Note 2. Steel plate with dampers, or for special burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. This dimension 1¾" on boiler numbers 376-381 inclusive.

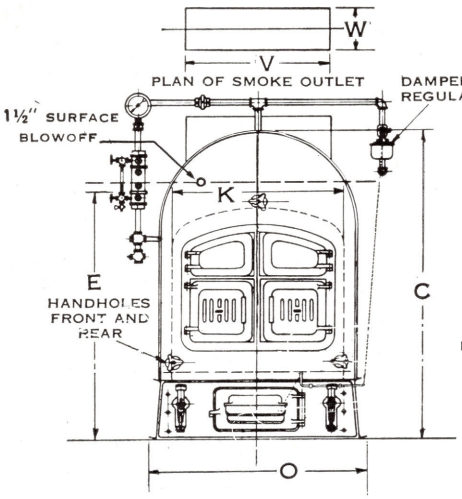
Note 4. Average Firebox Height is computed by dividing the firebox volume by the plan area. On stoker fired boilers 385 to 390 additional furnace height and volume for S.H.B.I. standard may be provided in base.

Specifications and Setting Measurements

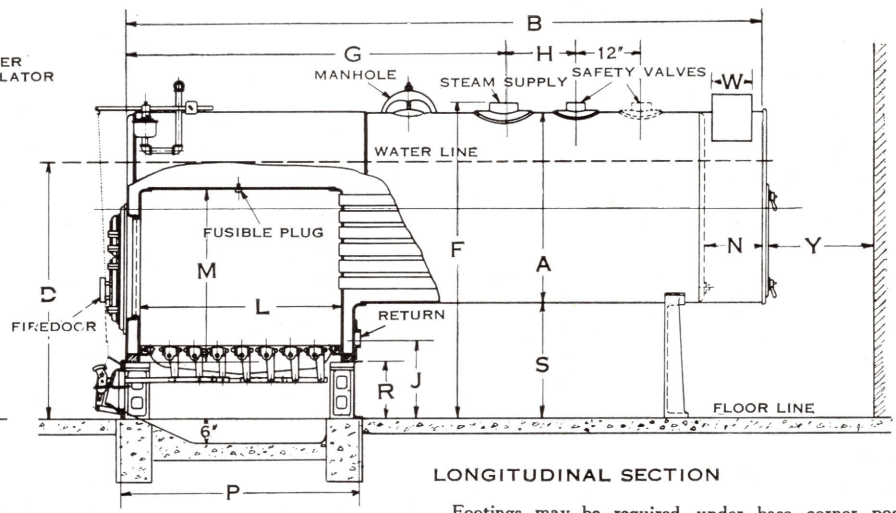
	3" Tubes				4" Tubes										
Boiler Number	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390
Rating—Steam Radiation Sq. Ft.	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation Sq. Ft.	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour 1000's	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.) Sq. Ft.	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu. Ft.	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Net Furnace Volume, Oil-Gas Cu.Ft.	56.3	58.3	69.6	72.2	92.1	104.5	119.6	137.5	162.2	170.7	198.2	228.3	260.8	304.4	323.3
Firebox Vol. Above Mud Ring Cu. Ft.	49.1	50.7	60.1	62.1	79.5	89.4	97.0	110.4	130.9	137.2	160.2	183.2	207.8	231.9	245.5
Average Firebox Height (See Note 4) In.	37.6	37.6	39.3	39.3	44.4	44.4	43.8	43.8	46.6	46.6	49.4	49.5	49.5	51.0	51.0
Added Furnace Hgt. for Stoker (SHBI) In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	5	7	12	15	20
Hi-Firebox Volume Cu. Ft.	.....	.....	.....	.....	.....	.....	.....	.....	.....	151.9	176.4	209.2	258.2	300.2	341.9
Plan Area Sq. Ft.	15.7	16.2	18.4	18.9	21.5	24.2	26.6	30.3	33.7	35.3	38.9	44.5	50.4	54.6	57.8
Breeching Diameter In.	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In.	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft.	45	50	45	50	45	55	50	60	60	70	70	70	85	85	100
Breeching Diameter, Two Boilers In.	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft.	55	60	55	60	55	65	60	70	70	80	80	80	95	95	110
Steam Supply Size In.	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lb.	6200	6900	7400	8000	9100	10100	12500	14100	16500	18900	21200	23200	27500	31500	35200
A—Boiler Diameter In.	42	42	48	48	54	54	60	60	66	66	72	78	78	84	84
B—Boiler Length Ft. In.	8–3	9–3	8–7½	9–5	11–2½	12–11	12–8½	14–9	14–11	17–4	16–5	17–0½	20–7½	19–11	22–8
C—Boiler Height Overall In.	80	80	86	86	94	94	101	101	107	107	113	115	115	125	125
D—Water Line In.	70	70	73	73	78	78	85	85	88½	88½	94½	95	95	107½	107½
E—Water Column Height In.	68	68	71	71	76	76	83	83	86½	86½	92½	93	93	105½	105½
F—Steam Supply Height In.	82	82	88	88	96	96	103	103	109	109	115	117	117	127½	127½
G—Breeching Connection Height In.	70	70	74½	74½	81	81	86	86	89	89	96	97	97	109	109
H—Rear Stand Height In.	38	38	38	38	40	40	41	41	41	41	41	37	37	41	41
J—Steam Supply Location Ft. In.	1–10	2–0	1–10	2–0	2–0	9–8	9–8	10–6	10–8	11–6	11–6	11–8	13–4	13–2	14–0
K—Safety Valve Location In.	16	16	16	16	16	15	14	15	15	21	18	21	28	26	36
L—Safety Valve Location In.	.....	.....	.....	.....	.....	.....	.....	.....	12	12	12	12	12	12	12
N—Return Height In.	19	19	19	19	19½	19½	22½	22½	22½	22½	22½	22½	23½	27½	27½
O—Firebox Width In.	36	36	42	42	48	48	53	53	59	59	65	71	71	77	77
P—Firebox Length In.	62	64	62	64	64	72	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	41½	41½	44	44	49	49	49	49	52	52	54½	55	55	57	57
T—Base Width In.	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84	90½	90½
U—Base Length In.	71½	73½	72	74	74	82	83	93	93	97	97	101½	113½	113½	119½
V—Base Height In.	14	14	14	14	14	14	17	17	17	17	17	17	17	21	21
W—Breeching Connection Length In.	32	32	34	34	40	40	44	44	51	51	54	60	60	64	64
X—Breeching Connection Width In.	9	9	11	11	12	12	14	14	15	15	19	18	18	22	22
Y—Breeching Connection Location In.	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11	13	13
Z—Rear Door Clearance In.	42	42	48	48	30	30	33	33	36	36	39	42	42	45	45
AA—Furnace Length In.	53	55	53	55	55	63	63	73	73	77	77	81	93	93	99
BB—Furnace Width In.	24	24	30	30	36	36	42	42	48	48	54	60	60	66	66
CC—Burners Location In.	.....	.....	.....	.....	8½	8½	9½	9½	11	11	12½	14	14	15	15
DD—Bolt Centers in Plate In.	37½	37½	43½	43½	49½	49½	55½	55½	61½	61½	67½	73½	73½	79½	79½
EE—Bolt Centers in Plate In.	4¾	4¾	4¾	4¾	4¾	4¾	5¾	5¾	5¾	5¾	5¾	5¾	5¾	7¾	7¾
FF—Pit Depth In.	9	9	9	9	10	10	10	10	10	11	11	12	12	13	13
GG—Rear Stand Location In.	.....	.....	.....	.....	44	57	54	66	69	94	82	82	96	96	114
HH—Total Area Ports or Openings Sq. In.	64	73	83	92	110	127	155	182	230	273	320	365	455	545	640
JJ—Foundation Width In.	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88	94	94
KK—Foundation Length In.	72½	74½	73	75	75	83	84	94	94	98	98	102½	114½	114½	120½
Size of Dampered Openings In.	6x11	6x12	6x14	6x16	7x16	7x18	7x22	7x26	2–7x16	2–8x17	2–8x20	2–9x20	2–9x25	2–10x27	2–10x32
Number of Fire Brick	375	390	410	425	450	480	575	625	660	680	715	780	835	990	1020
*Outside Surface to Cover Sq. Ft.	110	120	130	140	185	210	220	255	280	320	330	360	435	450	510

*Front smokebox and front head below smokebox NOT included.

KEWANEE Firebox Boiler **Type "K"** Up-Draft For Coal



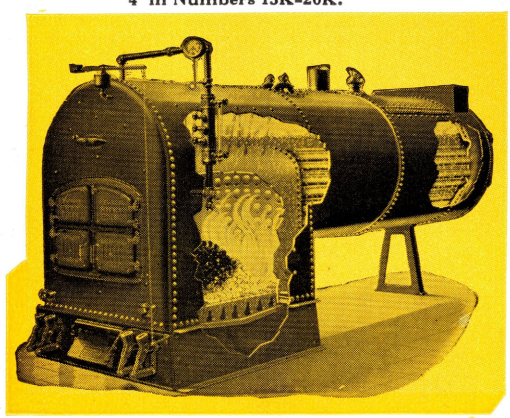
FRONT ELEVATION

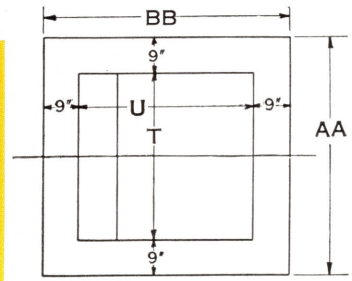


LONGITUDINAL SECTION

Footings may be required under base corner post, depending on soil conditions.

Type "K" Series Riveted Up-draft Firebox Boiler, With Single-pass Tubes: 3" in Numbers 3K-12K, 4" in Numbers 13K-20K.





FOUNDATION PLAN

Type "K" conforms to the A.S.M.E. boiler code for construction 15 lbs., and for rating with the S.H.B.I. simplified practice recommendation.

Equipment: Steel base assembled with cast iron ash pit front and four cast iron corner posts; Heavy rocking or dumping grates; backstand; fire and flue doors. Manhole furnished on Nos. 8K and larger.

Firing Tools: Hoe, poker, slice bar, flue cleaner and handle.

Trimmings for Steam Only: Safety valve; steam gauge with syphon and cock; water column with water gauge, glass and cocks; damper regulator, may be in front head or on pipe arm.

The Kewanee Type "K" is a ruggedly constructed up-draft firebox boiler for heating average and smaller size buildings with any kind of fuel and without skilled attention. Its service giving qualities are the same as in the largest Kewanee boilers. Type "K" is a portable series for asbestos covering. All flues are cleaned either from front or rear. Breeching connection is at rear.

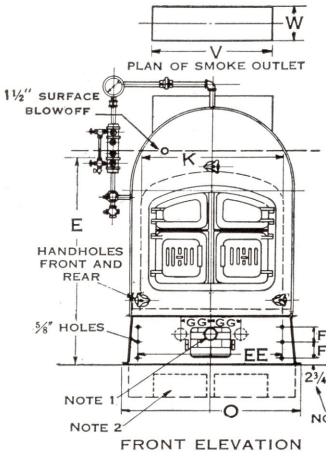
The correct size Kewanee boiler for heating any building may usually be shipped from our complete stock of steel heating boilers same day the order is received. Boilers up to 12K may be ordered for higher steam pressures 100-125-150 lbs.

Specifications and Setting Measurements — 3" Tubes → | ← 4" Tubes

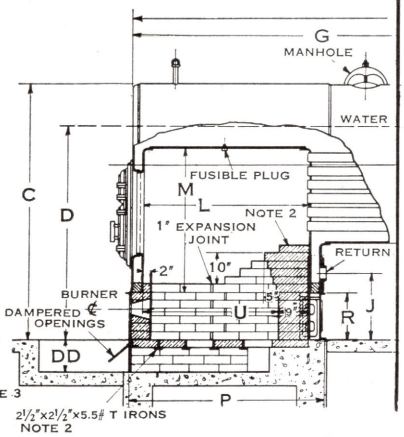
Boiler Number	3K	4K	5K	6K	8K	9K	10K	11K	12K	13K	14K	15K	16K	18K	20K
Rating—Steam Radiation.....Sq. Ft.	1240	1380	1800	2200	3000	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000
Water Radiation.....Sq. Ft.	1980	2210	2880	3520	4800	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000
Btu. per Hour.....1000's	298	331	432	528	720	840	960	1080	1200	1440	1680	2040	2400	3000	3600
Heating Surface (SHBI min.)..Sq. Ft.	104	119	129	158	215	250	286	322	358	429	500	608	715	893	1072
Grate Area (SHBI min.).....Sq. Ft.	6.4	6.8	7.9	8.9	10.5	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4
Breeching Diameter.....In.	14	16	16	17	18	19	20	21	22	23	24	26	28	30	31
Stack Diameter.....In.	12	14	14	15	16	17	18	19	20	21	22	24	26	28	29
Stack Height.....Ft.	35	35	35	40	40	40	40	45	45	45	45	50	50	55	55
Breeching Diameter, Two Boilers..In.	20	22	22	23	24	25	26	27	28	30	31	34	36	40	41
Stack Diameter, Two Boilers.....In.	18	20	20	21	22	23	24	25	26	28	29	32	34	37	38
Stack Height, Two Boilers.....Ft.	40	40	40	45	45	45	45	50	50	50	55	60	60	65	65
Steam Supply Size.....In.	5	5	6	6	6	6	6	6	6	8	8	8	8	8	8
Return Size.....In.	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Safety Valve Size.....In.	1¼	1½	1½	1½	2	2	2	2	2½	2½	2½	3	3	2–2	2–2½
Shipping Weight.....Lb.	3500	3900	4200	4700	5700	6400	7000	7600	8200	9500	10700	12600	14500	17600	20700
A—Boiler Diameter.....In.	30	36	36	36	42	42	48	48	48	54	54	60	60	66	72
B—Boiler Length.....Ft. In.	9–10	8–10	10–4	11–10	11–4	12–10	11–10	13–4	14–10	15–3	17–9	17–0	19–6	19–6	19–6
C—Boiler Height Overall.....In.	59	65	65	65	71	71	77	77	77	83	83	93	93	99	105
D—Water Line.....In.	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	85½
E—Water Column Height.....In.	50½	53½	53½	53½	57	57	59½	59½	59½	64½	64½	72½	72½	77½	83
F—Steam Supply Height.....In.	61	67	67	67	73	73	79	79	79	85	85	95	95	101	107
G—Steam Supply Location....Ft. In.	5–6	4–11	5–11	6–11	6–8	7–2	7–0	7–10	8–6	9–2	9–8	9–6	10–8	10–8	10–9
H—Safety Valve Location.....In.	16	15	18	18	13	13	16	18	18	21	30	26	30	30	34
J—Return Height.....In.	19	19	19	19	19	19	19	19	19	19½	19½	22½	22½	22½	22½
K—Firebox Width.....In.	24	30	30	30	36	36	42	42	42	48	48	53	53	59	65
L—Firebox Length.....In.	38	32	38	44	44	50	44	50	56	56	62	62	68	68	74
M—Firebox Height.....In.	35	38	38	38	41½	41½	44	44	44	49	49	54	54	59	64½
N—Rear Smokebox Depth.....In.	16	16	16	16	16	16	16	16	16	16	16	18	18	18	18
O—Base Width.....In.	35	41½	41½	41½	47½	47½	53½	53½	53½	59½	59½	66	66	72	78
P—Base Length.....In.	47	41	47	53	53	59	53	59	65	65	71	73	79	79	85
R—Base Height.....In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17
S—Rear Stand Height.....In.	29	29	29	29	29	29	29	29	29	29	29	33	33	33	33
T—Ash Pit Width.....In.	24	30	30	30	36	36	42	42	42	47½	47½	52½	52½	58½	64
U—Ash Pit Length.....In.	30	24	30	36	36	42	36	42	48	48	54	56	62	62	68
V—Breeching Connection Length..In.	16	24	24	24	30	30	36	36	36	46	46	50	50	54	68
W—Breeching Connection Width..In.	8	10	10	10	10	10	10	10	10	10	10	12	12	12	13
Y—Rear Door Clearance.....In.	30	36	36	36	42	42	48	48	48	30	30	33	33	36	39
AA—Foundation Width.....In.	42	48	48	48	54	54	60	60	60	65½	65½	70½	70½	76½	82
BB—Foundation Length.....In.	48	42	48	54	54	60	54	60	66	66	72	74	80	80	86
*Outside Surface to Cover.....Sq. Ft.	85	91	106	120	133	149	157	177	197	200	235	275	314	345	366

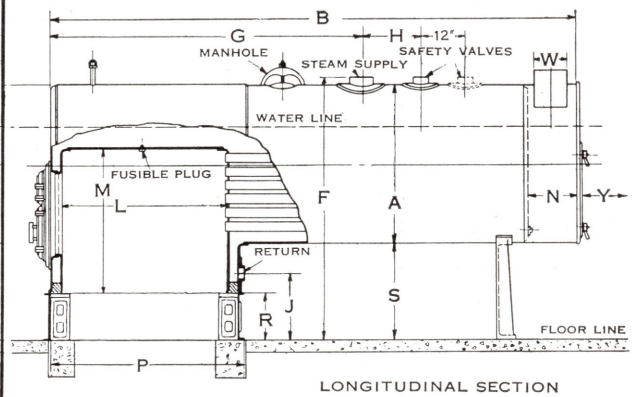
*Front head NOT included.

KEWANEE Firebox Boiler **Type "K"** Up-Draft For Oil, Gas or Stoker



FRONT ELEVATION





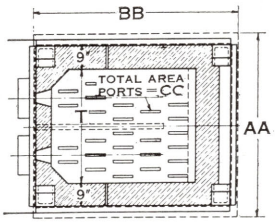
LONGITUDINAL SECTION

Trimmings for Steam Only: Safety valve, steam gauge with syphon and cock; water column with water gauge, glass and cocks.

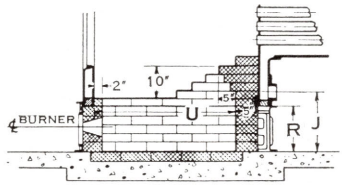
Note 1. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Note 2. Steel plate with dampers, or for special Burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. This dimension 1¾" on 3K to 14K inclusive.



FOUNDATION AND HEARTH PLAN



LONGITUDINAL SECTION
BOILERS 3K TO 9K INCL.

Footings may be required under base corner posts depending on soil conditions.

Equipment: Steel base, assembled with four cast iron corner posts; front and rear panels have 8½x11½ opening and cover plate; backstand; fire and flue doors; flue cleaner and handle. Manhole furnished on boilers 8K and larger.

For Cut-away View Type "K" Series Oil-Gas, see page 24

This portable steel riveted Type "K" for oil, gas or stoker should not be overlooked for any building requiring a small dependably constructed heating boiler. Kewanee Boiler Corporation builds into Type "K" portable boilers those qualities for giving the same rugged heating service year after year as it does into all the heavy duty boilers built at Kewanee during the past 75 years.

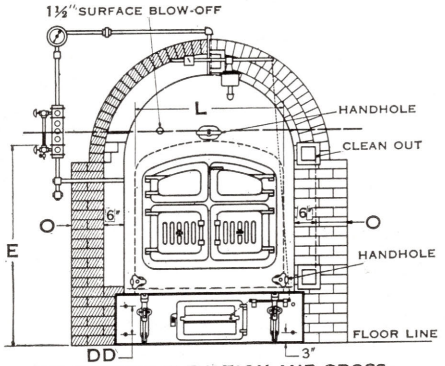
The Kewanee firebox type boiler is well adaptable for giving high efficiency with oil, gas or stoker firing because it has the essential height in the furnace, enough length of gas travel, disengaging area, and steam space; but above all it has matchless circulation of the ample water content. In other words Kewanee boilers stand the gaff and deliver the goods.

Specifications and Setting Measurements

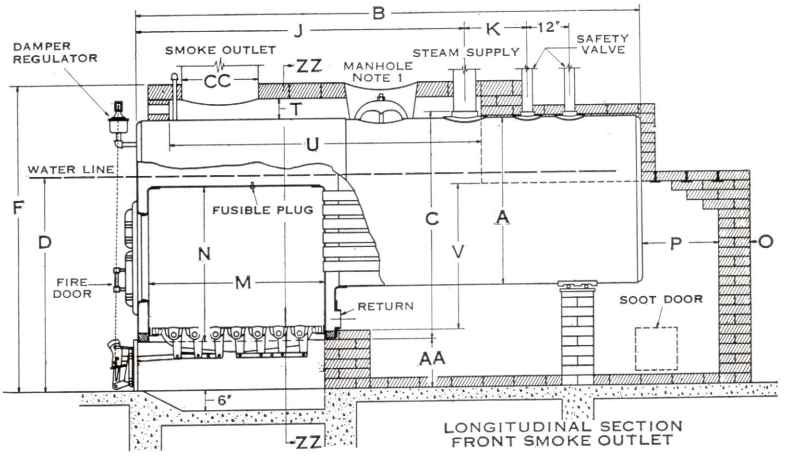
Boiler Number	3K	4K	5K	6K	8K	9K	10K	11K	12K	13K	14K	15K	16K	18K	20K
	3" Tubes →									← 4" Tubes					
Rating—Steam Radiation....Sq. Ft.	1770	2020	2190	2680	3650	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220
Water Radiation....Sq. Ft.	2830	3230	3500	4280	5840	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150
Btu. per Hour....1000's	425	485	526	643	876	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373
Heating Surface (SHBI min.)..Sq. Ft.	104	119	129	158	215	250	286	322	358	429	500	608	715	893	1072
Furnace Volume (SHBI min.).Cu. Ft.	13.5	14.6	15.7	19.2	26.1	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2
Net Furnace Volume, Oil-Gas. Cu. Ft.	21.4	23.6	28.4	33.5	43.5	50.0	50.0	57.8	65.6	83.8	93.5	113.8	125.6	153.3	200.7
Firebox Vol. above Mud Ring..Cu. Ft.	17.0	19.2	22.6	26.3	34.5	39.2	42.5	48.4	54.3	70.4	77.8	92.2	101.0	125.3	165.4
Average Firebox Height.....In.	31.8	33.9	33.9	33.9	37.3	37.3	39.5	39.5	39.5	44.9	44.9	48.3	48.3	53.7	59.3
Plan Area.....Sq. Ft.	6.4	6.8	8.0	9.3	11.1	12.6	12.9	14.7	16.5	18.8	20.8	22.9	25.1	28.0	33.5
Breeching Diameter.....In.	14	16	16	17	18	19	20	21	22	23	24	26	28	30	31
Stack Diameter.....In.	12	14	14	15	16	17	18	19	20	21	22	24	26	28	29
Stack Height.....Ft.	30	30	30	35	35	35	35	40	40	40	40	40	40	45	45
Breeching Diameter, Two Boilers..In.	20	22	22	23	24	25	26	27	28	30	31	34	36	40	41
Stack Diameter, Two Boilers.....In.	18	20	20	21	22	23	24	25	26	28	29	32	34	37	38
Stack Height, Two Boilers.....Ft.	40	40	40	45	45	45	45	50	50	50	50	50	50	55	55
Steam Supply Size.....In.	5	5	6	6	6	6	6	6	6	8	8	8	8	8	8
Return Size.....In.	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4
Safety Valve Size.....In.	1¼	1½	1½	1½	2	2	2	2	2½	2½	2½	3	3	2–2	2–2½
Shipping Weight.....Lb.	3130	3550	3800	4200	5100	5800	6400	6900	7400	8600	9700	11500	13300	16100	19100
A—Boiler Diameter.....In.	30	36	36	36	42	42	48	48	48	54	54	60	60	66	72
B—Boiler Length.....Ft. In.	9–10	8–10	10–4	11–10	11–4	12–10	11–10	13–4	14–10	15–3	17–9	17–0	19–6	19–6	19–6
C—Boiler Height Overall.....In.	59	65	65	65	71	71	77	77	77	83	83	93	93	99	105
D—Water Line.....In.	52	55	55	55	58½	58½	61	61	61	66	66	75	75	80	85½
E—Water Column Height.....In.	50½	53½	53½	53½	57	57	59½	59½	59½	64½	64½	72½	72½	77½	83
F—Steam Supply Height.....In.	61	67	67	67	73	73	79	79	79	85	85	95	95	101	107
G—Steam Supply Location....Ft. In.	5–6	4–11	5–11	6–11	6–8	7–2	7–0	7–10	8–6	9–2	9–8	9–6	10–8	10–8	10–9
H—Safety Valve Location.....In.	16	15	18	18	13	13	16	18	18	21	30	26	30	30	34
J—Return Height.....In.	19	19	19	19	19	19	19	19	19	19½	19½	22½	22½	22½	22½
K—Firebox Width.....In.	24	30	30	30	36	36	42	42	42	48	48	53	53	59	65
L—Firebox Length.....In.	38	32	38	44	44	50	44	50	56	56	62	62	68	68	74
M—Firebox Height.....In.	35	38	38	38	41½	41½	44	44	44	49	49	54	54	59	64½
N—Rear Smokebox Depth.....In.	16	16	16	16	16	16	16	16	16	16	16	18	18	18	18
O—Base Width.....In.	35	41½	41½	41½	47½	47½	53½	53½	53½	59½	59½	66	66	72	78
P—Base Length.....In.	47	41	47	53	53	59	53	59	65	65	71	73	79	79	85
R—Base Height.....In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17
S—Rear Stand Height.....In.	29	29	29	29	29	29	29	29	29	29	29	33	33	33	33
T—Furnace Width.....In.	19	24	24	24	30	30	33	33	33	39	39	44	44	50	56
U—Furnace Length.....In.	33	27	33	39	39	45	35	41	47	47	53	53	59	59	65
V—Breeching Connection Length..In.	16	24	24	24	30	30	36	36	36	46	46	50	50	54	68
W—Breeching Connection Width..In.	8	10	10	10	10	10	10	10	10	10	10	12	12	12	13
Y—Rear Door Clearance.....In.	30	36	36	36	42	42	48	48	48	30	30	33	33	36	39
AA—Foundation Width.....In.	42	48	48	48	54	54	60	60	60	65½	65½	70½	70½	76½	82
BB—Foundation Length.....In.	48	42	48	54	54	60	54	60	66	66	72	74	80	80	86
CC—Total Area Ports or Openings.....Sq. In.		No	Pit R	equired			73	83	92	110	127	155	182	230	273
DD—Pit Depth.....In.		No	Pit R	equired			8	8	8	9	9	9	9	10	10
EE—Bolt Centers in Plate.....In.	25½	31½	31½	31½	37½	37½	43½	43½	43½	49½	49½	55½	55½	61½	67½
FF—Bolt Centers in Plate.....In.	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	5¾	5¾	5¾	5¾
GG—Burners Location.....In.										8½	8½	10	10	11½	13
Size of Dampered Openings.....In.		No	Pit R	equired			5x15	5x17	5x19	6x19	6x23	2–6x13	2–6x15	2–7x17	2–7x20
Number of Fire Brick.....	145	150	165	185	200	240	320	350	380	400	420	480	510	540	620
*Outside Surface to Cover.....Sq. Ft.	85	91	106	120	133	149	157	177	197	200	235	275	314	345	366

*Front head NOT included.

KEWANEE "Brickset" Up-Draft Boiler For Coal



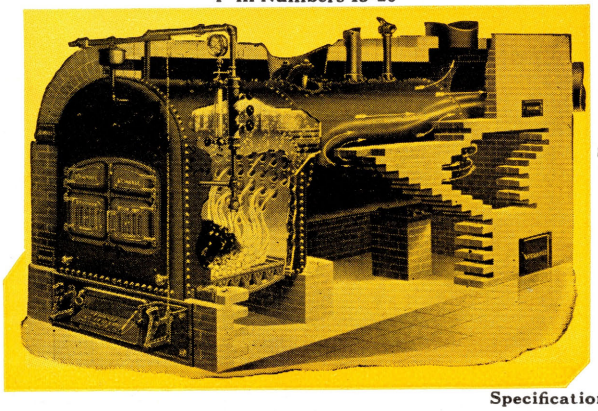
HALF FRONT ELEVATION AND CROSS-SECTION THRU BRICKWORK AT "ZZ"

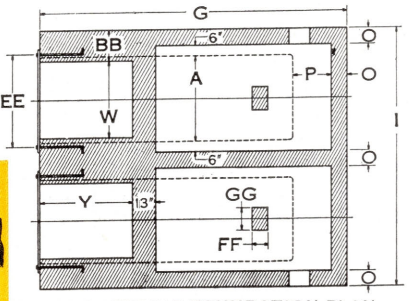


LONGITUDINAL SECTION FRONT SMOKE OUTLET

Kewanee Firebox Boilers have proved to be exceptionally long-lived. For several decades the Brickset Up-Draft style has been standard of the trade, and many of the earliest installations are still giving good service.

Riveted Up-Draft Firebox Boiler With Single-Pass Tubes: 3" in Numbers 3-12, 4" in Numbers 13-20





DOUBLE SETTING FOUNDATION PLAN

For Rear Smoke Outlet Setting, See Oil Diagram

Brickset Boilers conform to the American Society of Mechanical Engineers Boiler Code for construction 15 lbs., and for rating with the Steel Heating Boiler Institute Simplified Practice Recommendation.

Equipment: Heavy rocking or dumping grates, fire doors and frame, ash pit front with ash door(s) and draft door(s), the necessary soot doors, bearing plates with expansion rollers supporting boiler shell on brick pier at rear, and back arch bars.

Note 1. Manhole and shield furnished on boilers number 8 and larger.

Firing Tools: Hoe, poker, slice bar, flue cleaner and handle.

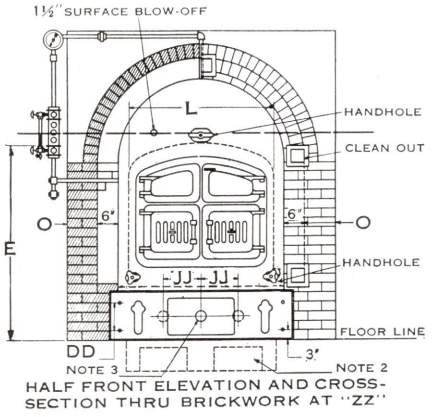
Trimmings for Steam only: Safety valve, steam gauge and syphon. Water column with water gauge, glass and gauge cocks, damper regulator.

At our 33-acre plant in Kewanee there are 1000 boilers on hand ready to ship same day the order is received, for any size building load.

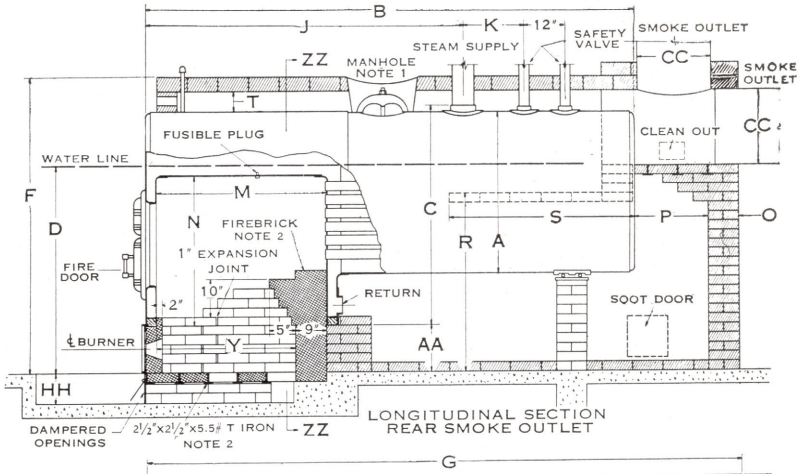
Specifications and Setting Measurements

Boiler Number	3	4	5	6	8	9	10	11	12	13	14	15	17	18	19	20
Rating—Steam Radiation Sq. Ft.	1240	1380	1800	2200	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000
Water Radiation Sq. Ft.	1980	2210	2880	3520	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000
Btu. per Hour 1000's	298	331	432	528	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800
Heating Surface (SHBI min.) Sq. Ft.	104	119	129	158	250	286	322	358	429	500	608	715	893	1072	1250	1429
Grate Area (SHBI min.) Sq. Ft.	6.4	6.8	7.9	8.9	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2
Breeching Diameter In.	14	16	16	17	19	20	21	22	23	24	26	28	30	31	33	35
Stack Diameter In.	12	14	14	15	17	18	19	20	21	22	24	26	28	29	31	33
Stack Height Ft.	40	40	40	45	45	45	45	50	50	50	50	55	60	60	60	60
Breeching Diameter, Two Boilers In.	20	22	22	23	25	26	27	28	30	31	34	36	40	41	44	47
Stack Diameter, Two Boilers In.	18	20	20	21	23	24	25	26	28	29	32	34	37	38	41	44
Stack Height, Two Boilers Ft.	50	50	50	55	55	55	55	60	60	60	60	65	70	70	70	70
Steam Supply Size In.	5	5	6	6	6	6	6	6	8	8	8	8	8	8	8	8
Return Size In.	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
Safety Valve Size In.	1¼	1½	1½	1½	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½
Shipping Weight Lb.	2900	3300	3500	3900	5200	5700	6200	6700	7800	8800	10300	11800	14300	16800	19400	21900
A—Boiler Diameter In.	30	36	36	36	42	42	48	48	48	54	54	60	66	66	72	72
B—Boiler Shell Length Ft. In.	8–6	7–6	9–0	10–6	10–0	11–6	10–6	12–0	13–6	13–11	16–5	15–6	16–0	18–0	16–0	18–0
C—Boiler Shell Height In.	47	53	53	53	59	59	65	65	65	71	71	78	84	84	90	90
D—Water Line In.	52	55	55	55	58½	58½	61	61	66	66	66	75	80	80	85½	85½
E—Water Column Height In.	50½	53½	53½	53½	57	57	59½	59½	59½	64½	64½	72½	77½	77½	83	83
F—Setting Height In.	70	77	77	77	83	83	90	90	90	96	96	108	114	114	120	120
G—Setting Length Ft. In.	10–8	9–8	11–2	12–8	12–7	14–1	13–1	14–7	16–1	17–0	19–6	18–7	19–1	21–1	19–5	21–5
H—Setting Width Ft. In.	5–0	5–6	5–6	5–6	6–0	6–0	6–6	6–6	6–6	7–8	7–8	8–2	8–8	8–8	9–2	9–2
I—Double Setting Width Ft. In.	9–3	10–3	10–3	10–3	11–3	11–3	12–3	12–3	12–3	14–3	14–3	15–3	16–3	16–3	17–3	17–3
J—Steam Supply Location Ft. In.	5–6	4–11	5–11	6–11	6–8	7–2	7–0	7–10	8–6	9–2	9–8	9–6	9–8	10–8	9–9	10–9
K—Safety Valve Location In.	16	15	18	18	13	13	16	18	18	21	30	26	27	30	24	34
L—Firebox Width In.	24	30	30	30	36	36	42	42	42	48	48	53	59	59	65	65
M—Firebox Length In.	38	32	38	44	44	50	44	50	56	56	62	62	62	68	68	74
N—Firebox Height In.	35	38	38	38	41½	41½	44	44	44	49	49	54	59	59	64½	64½
O—Thickness Wall In.	9	9	9	9	9	9	9	9	9	13	13	13	13	13	13	13
P—Rear Space In.	17	17	17	17	22	22	22	22	22	24	24	24	24	24	28	28
T—Top Flue Space In.	6	7	7	7	7	7	8	8	8	8	8	10	10	10	10	10
U—Arch Length Ft. In.	4–9	4–1	5–1	6–1	6–3	6–9	6–3	7–3	7–9	8–1	8–7	8–5	8–7	9–8	8–9	9–9
V—Side Flue Height In.	32	36	36	36	39	39	42	42	42	48	48	51	58	58	63	63
W—Ash Pit Width In.	25	31	31	31	37	37	43	43	43	49	49	54	60	60	66	66
Y—Ash Pit Length In.	41	35	41	47	47	53	47	53	59	59	65	66	66	72	72	78
AA—Ash Pit Height In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17
BB—Base Wall Thickness In.	17½	17½	17½	17½	17½	17½	17½	17½	17½	21½	21½	22	22	22	22	22
CC—Smoke Outlet Diameter In.	14	16	16	17	19	20	21	22	23	24	26	28	30	31	33	35
DD—Anchor Bolt Centers in Plate In.	8	8	8	8	8	8	8	8	8	8	8	11	11	11	11	11
EE—Anchor Bolt Centers in Plate In.	30	36	36	36	42	42	48	48	48	54	54	60	66	66	72	72
FF x GG—Pier Size In.	9x13	9x13	9x13	9x13	9x13	9x13	9x13	9x13	9x13	13x18	13x18	13x18	13x18	13x18	13x18	13x18
Number Common Brick	1750	1900	2150	2400	2650	2900	3000	3300	3600	5300	5900	6500	7200	7700	7700	8200
Number Common Brick, Two Boilers	2950	3300	3750	4100	4750	5350	5400	5900	6450	8350	10350	11350	12400	13450	13250	13850

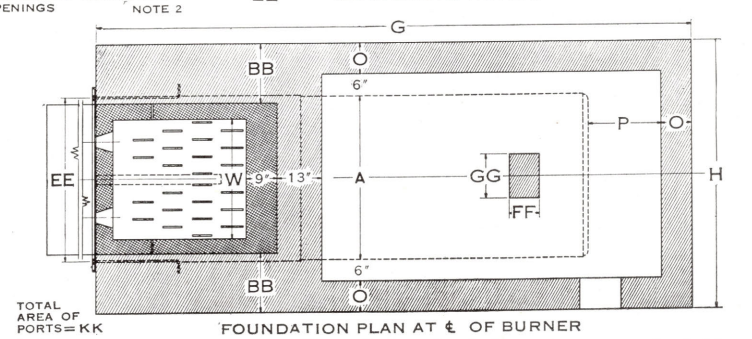
KEWANEE "Brickset" Up-Draft Boiler For Oil, Gas or Stoker



HALF FRONT ELEVATION AND CROSS-SECTION THRU BRICKWORK AT "ZZ"



LONGITUDINAL SECTION REAR SMOKE OUTLET



TOTAL AREA OF PORTS = KK

FOUNDATION PLAN AT ℄ OF BURNER

Equipment: Fire doors and frame, bearing plates with expansion rollers for supporting boiler shell on brick pier at rear, back arch bars, cast iron ash pit front, soot cleanout doors, flue cleaner and handle.

Trimming for Steam only: Safety valve, steam gauge and syphon, water column with water gauge, glass and gauge cocks.

Note 1. Manhole and shield furnished on boiler numbers 8 and larger.

Note 2. Steel plate with dampers, or for special burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Note 4. Average firebox height, computed by dividing the firebox volume by the plan area, complies with S.H.B.I. code when stoker dead plates are located at top of mud ring for all boilers except Nos. 18 and 20 where the dead plates should be placed 3" below top of mud ring.

For Cut-away View Brickset Oil Series, see page 24.

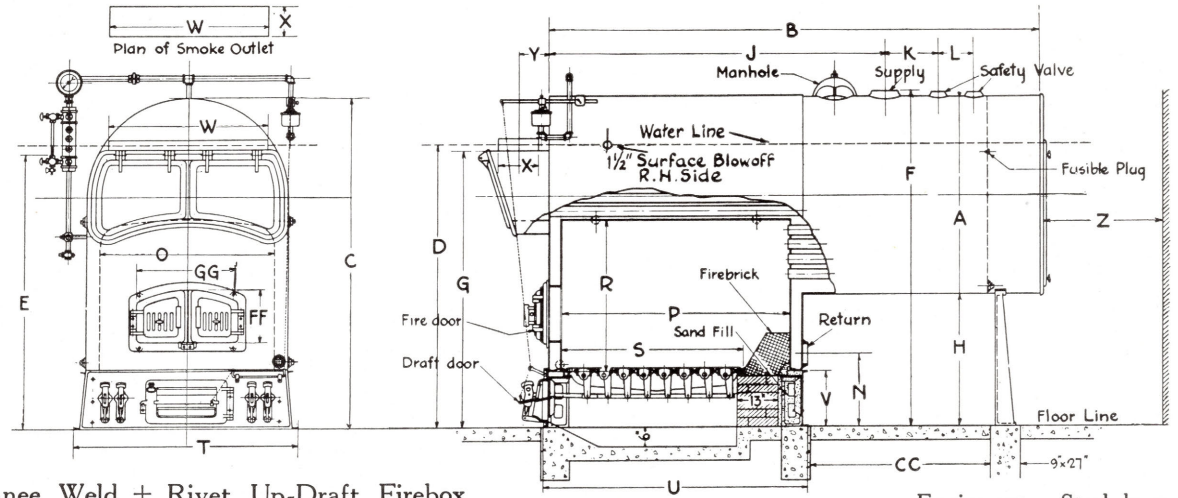
For stoker, sectional views same except fire brick and hearth omitted.

For front smoke outlet setting, see coal diagram.

Specifications and Setting Measurements

Boiler Number	3	4	5	6	8	9	10	11	12	13	14	15	17	18	19	20
Rating—Steam Radiation Sq. Ft.	1770	2020	2190	2680	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290
Water Radiation Sq. Ft.	2830	3230	3500	4280	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860
Btu. per Hour 1000's	425	485	526	643	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830
Heating Surface (SHBI min.) Sq. Ft.	104	119	129	158	250	286	322	358	429	500	608	715	893	1072	1250	1429
Furnace Volume (SHBI min.) Cu. Ft.	13.5	14.6	15.7	19.2	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5
Net Furnace Volume, Oil-Gas Cu. Ft.	21.4	23.6	28.4	33.5	43.5	50.0	50.0	57.8	65.6	83.8	93.5	113.8	138.8	153.3	183.7	200.7
Firebox Volume Above Mud Ring Cu. Ft.	17.0	19.2	22.6	26.3	34.5	39.2	42.5	48.4	54.3	70.4	77.8	92.2	114.1	125.3	152.1	165.4
Average Firebox Height (See Note 4) In.	31.8	33.9	33.9	33.9	37.3	37.3	39.5	39.5	39.5	44.9	44.9	48.3	53.7	53.7	59.3	59.3
Plan Area Sq. Ft.	6.4	6.8	8.0	9.3	11.1	12.6	12.9	14.7	16.5	18.8	20.8	22.9	25.5	28.0	30.8	33.5
Breeching Diameter In.	14	16	16	17	19	20	21	22	23	24	26	28	30	31	33	35
Stack Diameter In.	12	14	14	15	17	18	19	20	21	22	24	26	28	29	31	33
Stack Height Ft.	35	35	35	40	40	40	40	45	45	45	45	45	50	50	50	50
Breeching Diameter, Two Boilers In.	20	22	22	23	25	26	27	28	30	31	34	36	40	41	44	47
Stack Diameter, Two Boilers In.	18	20	20	21	23	24	25	26	28	29	32	34	37	38	41	44
Stack Height, Two Boilers Ft.	45	45	45	50	50	50	50	55	55	55	55	55	60	60	60	60
Steam Supply Size In.	5	5	6	6	6	6	6	6	8	8	8	8	8	8	8	8
Return Size In.	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4
Safety Valve Size In.	1¼	1½	1½	1½	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½
Shipping Weight Lb.	2500	2900	3100	3400	4600	5100	5500	5900	6900	7800	9200	10600	12800	15200	17700	20000
A—Boiler Diameter In.	30	36	36	36	42	42	48	48	48	54	54	60	66	66	72	72
B—Boiler Shell Length Ft. In.	8–6	7–6	9–0	10–6	10–0	11–6	10–6	12–0	13–6	13–11	16–5	15–6	16–0	18–0	16–0	18–0
C—Boiler Shell Height In.	47	53	53	53	59	59	65	65	65	71	71	78	84	84	90	90
D—Water Line In.	52	55	55	55	58½	58½	61	61	61	66	66	75	80	80	85½	85½
E—Water Column Height In.	50½	53½	53½	53½	57	57	59½	59½	59½	64½	64½	72½	77½	77½	83	83
F—Setting Height In.	70	77	77	77	83	83	90	90	90	96	96	108	114	114	120	120
G—Setting Length Ft. In.	10–8	9–8	11–2	12–8	12–7	14–1	13–1	14–7	16–1	17–0	19–6	18–7	19–1	21–1	19–5	21–5
H—Setting Width Ft. In.	5–0	5–6	5–6	5–6	6–0	6–0	6–6	6–6	6–6	7–8	7–8	8–2	8–8	8–8	9–2	9–2
I—Double Setting Width Ft. In.	9–3	10–3	10–3	10–3	11–3	11–3	12–3	12–3	12–3	14–3	14–3	15–3	16–3	16–3	17–3	17–3
J—Steam Supply Location Ft. In.	5–6	4–11	5–11	6–11	6–8	7–2	7–0	7–10	8–6	9–2	9–8	9–6	9–8	10–8	9–9	10–9
K—Safety Valve Location In.	16	15	18	18	13	13	16	18	18	21	30	26	27	30	24	34
L—Firebox Width In.	24	30	30	30	36	36	42	42	42	48	48	53	59	59	65	65
M—Firebox Length In.	38	32	38	44	44	50	44	50	56	56	62	62	62	68	68	74
N—Firebox Height In.	35	38	38	38	41½	41½	44	44	44	49	49	54	59	59	64½	64½
O—Thickness Wall In.	9	9	9	9	9	9	9	9	9	13	13	13	13	13	13	13
P—Rear Space In.	17	17	17	17	22	22	22	22	22	24	24	24	24	24	28	28
R—Shelf Height In.	44	47	47	47	50	50	53	53	53	56	56	63	66	66	69	69
S—Shelf Length In.	44	36	42	54	48	60	54	66	80	84	102	90	90	108	84	102
T—Top Flue Space In.	6	7	7	7	7	7	8	8	8	8	8	10	10	10	10	10
W—Furnace Width In.	19	24	24	24	30	30	33	33	33	39	39	44	50	50	56	56
Y—Furnace Length In.	33	27	33	39	39	45	35	41	47	47	53	53	53	59	59	65
AA—Floor to Botton of Boiler In	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17
BB—Base Wall Thickness In.	17½	17½	17½	17½	17½	17½	17½	17½	17½	21½	21½	22	22	22	22	22
CC—Smoke Outlet Diameter In.	14	16	16	17	19	20	21	22	23	24	26	28	30	31	33	35
DD—Anchor Bolt Centers in Plate In.	8	8	8	8	8	8	8	8	8	8	8	11	11	11	11	11
EE—Anchor Bolt Centers in Plate In.	30	36	36	36	42	42	48	48	48	54	54	60	66	66	72	72
FF x GG—Pier Size In.	9x13	9x13	9x13	9x13	9x13	9x13	9x13	9x13	9x13	13x18	13x18	13x18	13x18	13x18	13x18	13x18
HH—Pit Depth In.	.....	.....	.....	.....	9	9	9	9	10	10	10	10	10	11	11	12
JJ—Burners Location In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	9	10	11½	11½	13	13
KK—Total Area of Ports or Open's. Sq. In.	.....	.....	.....	.....	64	73	83	92	110	127	155	182	230	273	320	365
Size of Dampered Openings In.	.....	.....	.....	.....	6x11	6x12	6x14	6x16	7x16	7x18	7x22	7x26	2–7x16	2–8x17	2–8x20	2–9x20
Number of Firebrick	145	150	165	185	200	240	320	350	380	400	420	480	530	540	585	620
Number of Common Brick	1750	1900	2150	2400	2650	2900	3000	3300	3600	5300	5900	6500	7200	7700	7700	8200
Number Common Brick, Two Boilers	2950	3300	3750	4100	4750	5350	5400	5900	6450	8350	10350	11350	12400	13450	13250	13850

KEWANEE WELD+RIVET FIREBOX BOILER "5000" Series Up-Draft For Coal



Kewanee Weld + Rivet Up-Draft Firebox Boilers in "5000" Series include 15 sizes for Burning Coal.

This design features increased heating surface, steam space, disengaging area, furnace volume and water content, yet takes up less room. The steel base is shipped assembled, with grates. All seams are welded solid but the longitudinal butt-strap joint is riveted as required in some States and Cities.

"5000" Series conforms to boiler Codes of American Society of Mechanical Engineers and Steel Heating Boiler Institute: A.S.M.E. for construction 15 lbs. steam; and for rating with the S.H.B.I. Simplified Practice Recommendation.

Equipment: Steel base assembled, heavy rocking or dumping grates, backstand **except 5076-7;** fire and flue doors with frames; cleanout plugs, and manhole on 5082 and larger. No firebrick furnished.

Bridgewall omitted on 5076 to 5081.

Firing tools: Hoe, poker, slice bar, flue cleaner and handle.

Trimmings for Steam only: Steam gauge, water column, Arco regulator all complete and safety valve.

Footings may be required under base corner posts depending on soil conditions.

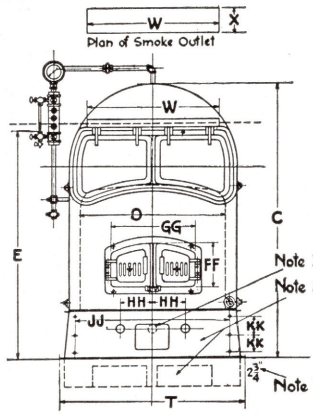
Steam Supply and Safety Valve located nearer front on 5076-7-8-9-80-1-2-3-4 and 6.

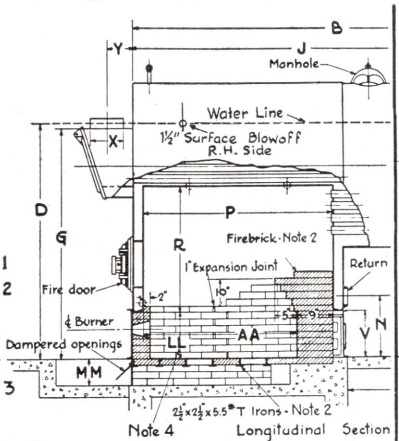
Specifications and Setting Measurements

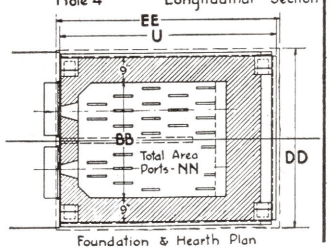
Boiler Number	5076	5077	5078	5079	5080	5081	5082	5083	5084	5085	5086	5087	5088	5089	5090
Rating—Steam Radiation Sq. Ft.	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation Sq. Ft.	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu. per Hour 1000's	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.) Sq. Ft.	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.) Sq. Ft.	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter, One Boiler In.	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter, One Boiler In.	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height, One Boiler Ft.	50	55	60	60	60	65	65	70	70	80	80	85	90	100	110
Breeching Diameter, Two Boilers In.	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft.	60	65	70	70	70	75	75	80	80	90	90	95	100	110	120
Steam Supply Size In.	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lbs.	5100	5600	6100	6600	7500	8400	9600	10800	12600	14400	16100	17900	21200	24400	27500
A—Boiler Diameter In.	42	42	42	42	48	48	54	54	60	60	66	66	72	78	78
B—Boiler Length Ft.-In.	7–3	8–0	8–11	9–10	9–9	11–1¼	11–1	12–9	13–2½	15–3	14–5½	16–0½	16–8½	17–5½	19–8½
C—Boiler Height Overall In.	81	81	81	81	86½	86½	92½	92½	100½	100½	105	105	112	117	117
D—Water Line In.	70	70	70	70	73½	73½	78	78	84	84	86	86	94½	96	96
E—Water Column Height In.	68	68	68	68	71½	71½	76	76	82	82	84	84	92½	94	94
F—Steam Supply Height In.	81½	81½	81½	81½	88	88	94	94	102	102	106	106	113	118	118
G—Breeching Connection Height In.	70	70	70	70	74	74	77½	77½	83½	83½	85½	85½	93	96	96
H—Rear Stand Height In.	38	38	38	38	38	38	38	38	40	40	38	38	39	38	38
J—Steam Supply Location Ft.-In.	1–4	1–4	1–5	1–5	1–5	1–5	2–0	2–6	2–6	10–9	2–9	11–0	12–0	12–3	13–0
K—Safety Valve Location In.	17	17	18	18	18	18	18	18	18	18	18	18	18	18	24
L—2nd Safety Valve Location In.									12	12	12	12	12	15	15
N—Return Height In.	18	18	18	18	18	18	18	18	21	21	21	21	22	22	22
O—Firebox Width In.	36½	36½	36½	36½	42½	42½	48½	48½	53½	53½	59½	59½	65½	71½	71½
P—Firebox Length In.	50	50	56	62	56	62	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	42	42	42	42	44	44	46	46	47	47	47½	47½	50½	53½	53½
S—Grate Length In.	50	50	56	62	56	62	61	67	73	79	79	85	85	85	91
T—Base Width In.	47½	47½	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84
U—Base Length In.	60	60	66	72	66	72	82	92	93	97	97	101½	113½	113½	119½
V—Base Height In.	14	14	14	14	14	14	14	14	17	17	17	17	17	17	17
W—Breeching Connection Length In.	32	32	32	32	34	34	40	40	44	44	51	51	54	60	60
X—Breeching Connection Width In.	9	9	9	9	11	11	12	12	14	14	15	15	19	18	18
Y—Breeching Connection Location In.	6½	6½	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11
Z—Rear Door Clearance In.	42	42	42	42	48	48	30	30	33	33	36	36	39	42	42
AA—Ash Pit Width In.	36	36	36	36	42	42	47½	47½	52½	52½	58½	58½	64	70	70
BB—Ash Pit Length In.	43	43	49	55	49	55	56	62	68	74	74	80	80	80	86
CC—Rear Stand Location In.			30	35	39	48	38	48	51	72	60	75	72	78	99
DD—Foundation Width In.	54	54	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88
EE—Foundation Length In.	61	61	67	73	67	73	83	93	94	98	98	102½	114½	114½	120½
FFxGG—Fire Door Opening In.	One 13½x27½				One 15x23		One 16x30				One 16x36			Two 15x23	
Fire Door Style	Single Frame & Double Drs.				Single Frame & Door		Single Frame and Double Doors							R&L Single Fr. & Dr.	
Number of Common Brick							175	175	185	185	200	200	220	240	240
Number of Fire Brick							35	50	40	40	40	40	85	110	110
*Outside Surface to Cover Sq. Ft.	100	110	120	130	140	160	177	202	227	260	265	292	330	370	416

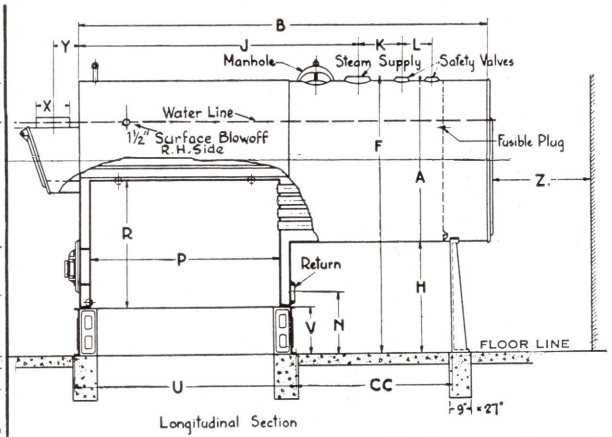
*Front smokebox and front head below smokebox NOT included.

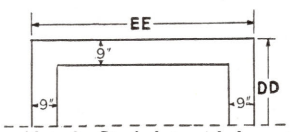
KEWANEE WELD+RIVET FIREBOX BOILER "5000" Series Up-Draft For Oil, Gas or Stoker











Kewanee Weld + Rivet Up-Draft Firebox Boilers in "5000" Series include 15 sizes for Oil, Gas or Stoker.

Equipment: Steel base assembled with four cast iron corner posts, front and rear panels have 8½x11½" opening and cover plate; backstand except 5176-7; fire and flue doors; flue cleaner and handle. Manhole furnished on 5182 and larger.

Trimmings for Steam Only—Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks.

Note 1. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Cut-away View "5000" Series Oil or Gas, compares with "400" Series page 24.

Footings may be required under base corner posts depending on soil conditions.

Steam Supply and Safety Valve located nearer front on 5176-7-8-9-80-1-2-3-4 and 6.

Note 2. Steel plate with dampers, or for special burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. This dimension 1¾" on No. 5176 to 5183 inclusive.

Note 4. This dimension LL is greater than height of base for boiler 5190.

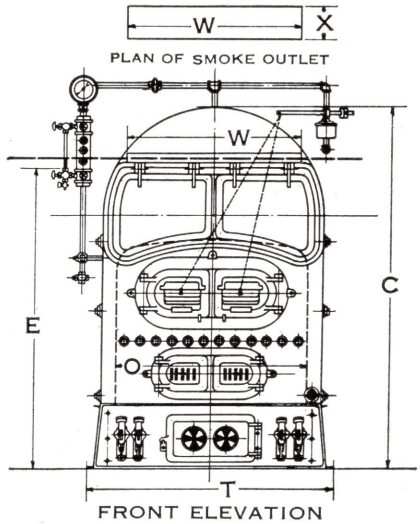
Note 5. Average Firebox Height is computed by dividing the firebox volume by the plan area. On stoker fired boilers 5184 to 5190 additional furnace height and volume for S.H.B.I. standard may be provided in base V, raising water line D same amount, also heights C-E-G-F-N-H. Or extended water leg may be ordered and two firedoors.

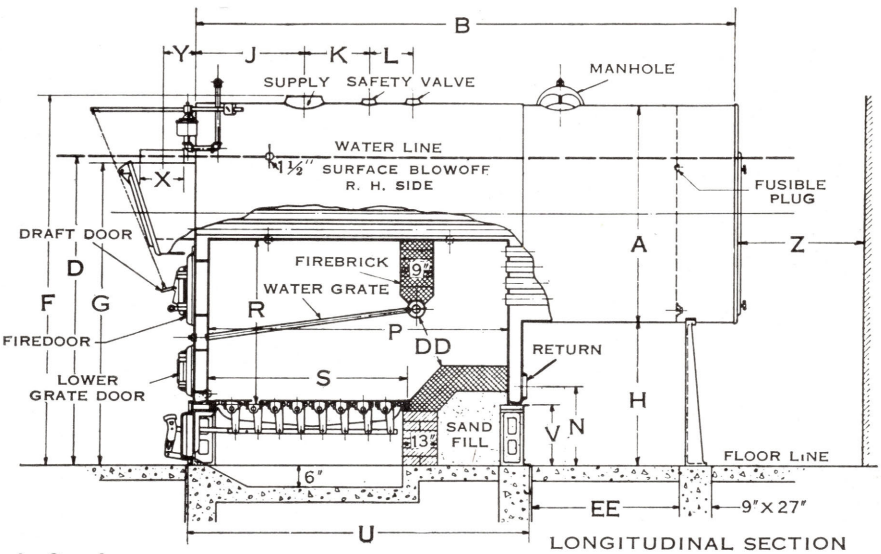
Specifications and Setting Measurements

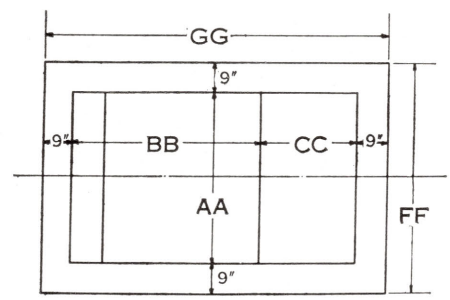
Boiler Number	5176	5177	5178	5179	5180	5181	5182	5183	5184	5185	5186	5187	5188	5189	5190
Rating—Steam Radiation Sq. Ft.	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation Sq. Ft.	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour 1000's	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.) Sq. Ft.	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu. Ft.	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Net Furnace Volume, Oil-Gas Cu. Ft.	49.8	49.8	56.4	62.8	67.8	75.2	102.4	117.7	140.2	147.8	165.7	174.0	237.3	267.0	303.9
Firebox Volume Above Mud Ring Cu. Ft.	44.3	44.3	49.6	54.5	60.2	66.6	90.6	103.2	117.5	123.4	137.5	144.0	197.1	222.0	235.2
Average Firebox Height (See Note 5) In.	42.0	42.0	42.0	42.0	43.6	43.6	44.8	44.8	46.3	46.3	46.4	46.4	51.0	52.6	52.6
Added Furnace Height for Stoker (S.H.B.I.) In.	.....	.....	.....	.....	.....	.....	.....	.....	2	6	9	12	12	15	19
Hi-Firebox Volume Cu. Ft.	.....	.....	.....	.....	.....	.....	.....	.....	122.6	139.4	164.1	181.2	243.5	285.2	320.1
Plan Area Sq. Ft.	12.7	12.7	14.2	15.7	16.5	18.3	24.2	27.6	30.5	32.0	35.5	37.2	46.4	50.6	53.6
Breeching Diameter, One Boiler In.	19	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter, One Boiler In.	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height, One Boiler Ft.	40	40	45	50	50	55	50	60	65	80	70	85	85	90	100
Breeching Diameter, Two Boilers In.	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft.	50	50	55	60	60	65	60	70	75	90	80	95	95	100	110
Steam Supply Size In.	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lbs.	4500	5000	5400	5800	6600	7400	8500	9600	11100	12800	14400	16000	19200	22300	25200
A—Boiler Diameter In.	42	42	42	42	48	48	54	54	60	60	66	66	72	78	78
B—Boiler Length Ft.-In.	7–3	8–0	8–11	9–10	9–9	11–1¼	11–1	12–9	13–2½	15–3	14–5½	16–0½	16–8½	17–5½	19–8½
C—Boiler Height Overall In.	81	81	81	81	86½	86½	92½	92½	100½	100½	105	105	112	117	117
D—Water Line In.	70	70	70	70	73½	73½	78	78	84	84	86	86	94½	96	96
E—Water Column Height In.	68	68	68	68	71½	71½	76	76	82	82	84	84	92½	94	94
F—Steam Supply Height In.	81½	81½	81½	81½	88	88	94	94	102	102	106	106	113	118	118
G—Breeching Connection Height In.	70	70	70	70	74	74	77½	77½	83½	83½	85½	85½	93	96	96
H—Rear Stand Height In.	38	38	38	38	38	38	38	38	40	40	38	38	39	38	38
J—Steam Supply Location Ft.-In.	1–4	1–4	1–5	1–5	1–5	1–5	2–0	2–6	2–6	10–9	2–9	11–0	12–0	12–3	13–0
K—Safety Valve Location In.	17	17	18	18	18	18	18	18	18	18	18	18	18	18	24
L—2nd Safety Valve Location In.	.....	.....	.....	.....	.....	.....	.....	.....	12	12	12	12	12	15	15
N—Return Height In.	18	18	18	18	18	18	18	18	21	21	21	21	22	22	22
O—Firebox Width In.	36½	36½	36½	36½	42½	42½	48½	48½	53½	53½	59½	59½	65½	71½	71½
P—Firebox Length In.	50	50	56	62	56	62	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	42	42	42	42	44	44	46	46	47	47	47½	47½	50½	53½	53½
T—Base Width In	47½	47½	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84
U—Base Length In.	60	60	66	72	66	72	82	92	93	97	97	101½	113½	113½	119½
V—Base Height In.	14	14	14	14	14	14	14	14	17	17	17	17	17	17	17
W—Breeching Connection Length In.	32	32	32	32	34	34	40	40	44	44	51	51	54	60	60
X—Breeching Connection Width In.	9	9	9	9	11	11	12	12	14	14	15	15	19	18	18
Y—Breeching Connection Location In.	6½	6½	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11
Z—Rear Door Clearance In.	42	42	42	42	48	48	30	30	33	33	36	36	39	42	42
AA—Furnace Length In.	41	41	47	53	47	53	63	73	73	77	77	81	93	93	99
BB—Furnace Width In.	30	30	30	30	33	33	36	36	42	42	48	48	54	60	60
CC—Rear Stand Location In.	.....	.....	30	35	39	48	38	48	51	72	60	75	72	78	99
DD—Foundation Width In.	54	54	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88
EE—Foundation Length In.	61	61	67	73	67	73	83	93	94	98	98	102½	114½	114½	120½
FFxGG—Fire Door Opening In.	One 13½x27½				Two 11x16				Two 12x20					Two 15x23	
Fire Door Style	Single Frame & Double Drs.				Right and Left Single Frame and Door										
HH—Burners Location In.	.....	.....	.....	.....	7	7	8½	8½	9½	9½	11	11	12½	14	14
JJ—Bolt Centers in Plate In.	37½	37½	37½	37½	43½	43½	49½	49½	55½	55½	61½	61½	67½	73½	73½
KK—Bolt Centers in Plate In.	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	5¾	5¾	5¾	5¾	5¾	5¾	5¾
LL—Hearth to Bottom of Boiler In.	14	14	14	14	14	14	14	14	17	17	17	17	17	17	23
MM—Pit Depth In.	9	9	9	9	10	10	10	10	10	11	11	17	12	15	24
NN—Total Area Ports or Openings Sq. In.	64	73	83	92	110	127	155	182	230	273	320	365	455	545	640
Size of Dampered Openings In.	6x11	6x12	6x14	6x16	7x16	7x18	7x22	7x26	2–7x16	2–8x17	2–8x20	2–9x20	2–9x25	2–10x27	2–11x29
Number of Fire Brick	340	340	360	380	390	415	565	620	715	740	780	920	920	1000	1275
*Outside Surface to Cover Sq. Ft.	100	110	120	130	140	160	177	202	227	260	265	292	330	370	416

*Front smokebox and front head below smokebox NOT included.

KEWANEE WELD+RIVET SMOKELESS BOILER "6000" Series Down-Draft For Coal







Kewanee Weld + Rivet Down-Draft Smokeless Boilers in "6000" Series include 14 sizes for Burning Coal as listed.

This design features increased heating surface, steam space, disengaging area, furnace volume and water content, yet takes up less room; with the addition of the down-draft water grate for extreme smokeless operation. The steel base is shipped assembled, with lower grates. All seams are welded solid but the longitudinal butt-strap joint is riveted as required in some States and Cities.

"6000" Series conforms to the A.S.M.E. Boiler Code or construction 15 lbs. and for rating with the S.H.B.I. simplified practice recommendation.

Steam Supply and Safety Valve located rear of Manhole on 6085-87-8-9 and 90.

Footings may be required under base corner posts depending on soil conditions.

Equipment: Steel base assembled with cast iron ashpit front and four cast iron corner posts, heavy rocking grates; backstand except 6077-80; draft, fire grate and flue doors with frames; cleanout plugs and manhole on 6082 and larger, special fire-brick tile, first course to fit header.

Firing tools: Hoe, poker, slice bar, flue and tube cleaners with handles, socket wrench.

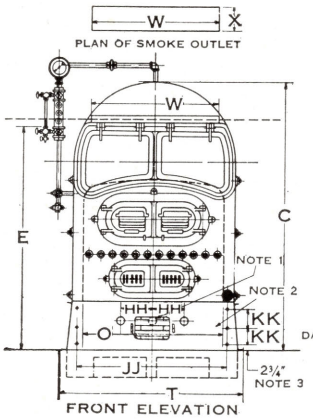
Trimmings for Steam only: Steam gauge, water column, Arco regulator all complete, and safety valve.

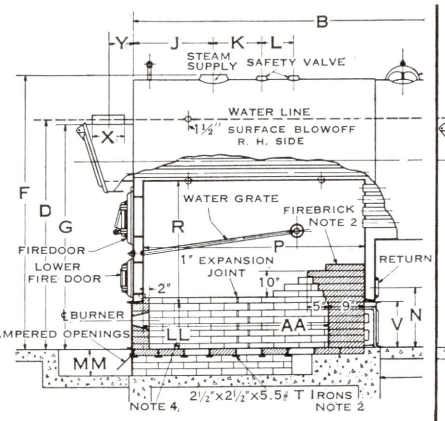
Specifications and Setting Measurements

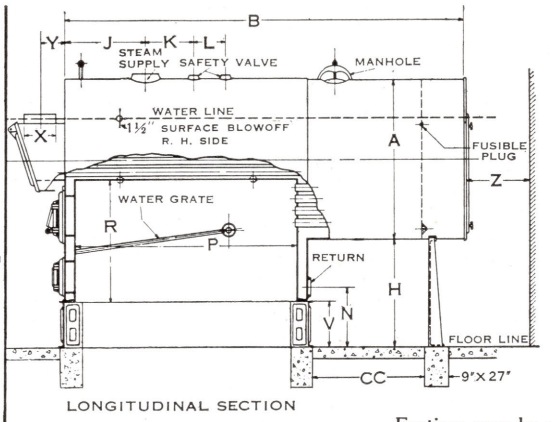
Boiler Number	6077	6078	6079	6080	6081	6082	6083	6084	6085	6086	6087	6088	6089	6090
Rating—Steam Radiation Sq. Ft.	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation Sq. Ft.	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu. per Hour 1000's	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.) Sq. Ft.	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.) Sq. Ft.	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter In.	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In.	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft.	55	60	60	60	65	65	70	75	85	85	95	95	105	115
Breeching Diameter, Two Boilers In.	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft.	65	70	70	70	75	75	80	85	95	95	105	105	115	125
Steam Supply Size In.	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lbs.	5800	6300	6800	7700	8600	9900	11200	13100	14900	16600	18300	21500	24500	27300
A—Boiler Diameter In.	42	42	42	48	48	54	54	60	60	66	66	72	78	78
B—Boiler Length Ft. In.	8–2	8–8	9–6	9–7	11–0	10–8½	12–4½	12–9½	14–9½	14–0½	15–7½	16–4½	17–1	19–4
C—Boiler Height Overall In.	81	81	81	86½	86½	92½	92½	100½	100½	105	105	112	117	117
D—Water Line In.	70	70	70	73½	73½	78	78	84	84	86	86	94½	96	96
E—Water Column Height In.	68	68	68	71½	71½	76	76	82	82	84	84	92½	94	94
F—Steam Supply Height In.	81½	81½	81½	88	88	94	94	102	102	106	106	113	118	118
G—Breeching Connection Height In.	70	70	70	74	74	77½	77½	83½	83½	85½	85½	93	96	96
H—Rear Stand Height In.	38	38	38	38	38	38	38	40	40	38	38	39	38	38
J—Steam Supply Location Ft. In.	1–5	1–5	1–5	1–5	1–5	2–0	2–6	2–6	10–6	2–9	11–0	11–9	12–3	13–0
K—Safety Valve Location In.	18	18	18	18	18	18	18	18	16	18	18	18	18	24
L—Safety Valve Location In.	.....	.....	.....	.....	.....	.....	.....	12	12	12	12	12	14	15
N—Return Height In.	18	18	18	18	18	18	18	21	21	21	21	22	22	22
O—Firebox Width In.	36½	36½	36½	42½	42½	48½	48½	53½	53½	59½	59½	65½	71½	71½
P—Firebox Length In.	62	62	66	64	72	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	42	42	42	44	44	46	46	47	47	47½	47½	50½	53½	53½
S—Grate Length In.	37	43	43	43	49	49	55	55	61	61	61	67	67	73
T—Base Width In.	47½	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84
U—Base Length In.	71½	71½	74½	73½	82	82	92	93	97	97	101½	113½	113½	119½
V—Base Height In.	14	14	14	14	14	14	14	17	17	17	17	17	17	17
W—Breeching Connection Length In.	32	32	32	34	34	40	40	44	44	51	51	54	60	60
X—Breeching Connection Width In.	9	9	9	11	11	12	12	14	14	15	15	19	18	18
Y—Breeching Connection Location In.	6½	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11
Z—Rear Door Clearance In.	42	42	42	48	48	30	30	33	33	36	36	39	42	42
AA—Ash Pit Width In.	36	36	36	42	42	47½	47½	52½	52½	58½	58½	64	70	70
BB—Ash Pit Length In.	31	37	37	37	43	43	49	50	56	56	56	62	62	68
CC—Bridgewall to Rear Wall In.	23½	17½	20½	19½	22	22	26	26	24	24	28½	34½	34½	34½
DD—Header to Bridgewall In.	10	11	11½	11	12	12	13	14	15	15	16	16	17	18
EE—Rear Stand Location In.	.....	.....	.....	.....	39	36	46	48	66	57	72	66	75	96
FF—Foundation Width In.	54	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88
GG—Foundation Length In.	72½	72½	75½	74½	83	83	93	94	98	98	102½	114½	114½	120½
Number of Common Brick	135	135	135	155	155	175	175	185	185	200	200	220	240	240
Number of Fire Brick	100	100	100	120	120	150	170	175	175	190	200	280	305	305
*Outside Surface to Cover Sq. Ft.	110	115	125	140	160	170	195	220	250	260	285	330	360	410

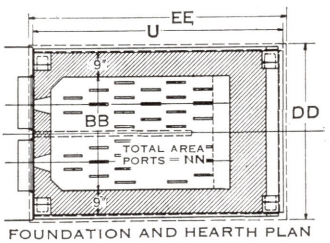
*Front smokebox and front head below smokebox NOT included.

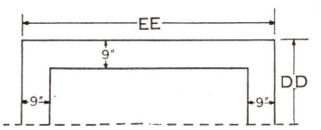
KEWANEE WELD+RIVET SMOKELESS BOILER "6000" Series Down-Draft For Oil, Gas or Stoker











Footings may be required under base corner posts depending on soil conditions.

Steam Supply and Safety Valve located rear of Manhole on 6185-87-8-9 and 90.

Kewanee Weld+Rivet Smokeless Firebox Boilers in "6000" Series include 14 sizes for Oil, Gas or Stoker as listed.

Equipment: Steel base assembled with four cast iron corner posts, front and rear panels have 8½x11½" opening and cover plate; backstand except 6177-80; fire, grate and flue doors and frames; cleanout plugs. Also flue and tube cleaners with handles, socket wrench.

Manhole furnished on boiler numbers 6182 and larger.

Trimmings for Steam only: Safety valve, steam gauge with syphon and cock, water column with water gauge, glass and cocks.

Cut-away View "6000" Series Oil or Gas compares with "300" Series page 24.

Note 1. For one burner only, locate on center line of boiler and use single hearth plan instead of double.

Note 2. Steel plate with dampers, or for special burner mountings, also fire brick lining and hearth angles, not furnished by Kewanee Boiler Corporation.

Note 3. This dimension 1¾" on boiler numbers 6177-6183 inclusive.

Note 4. This dimension LL is greater than height of base for boiler 6190.

Note 5. Average Firebox Height is computed by dividing the firebox volume by the plan area. On stoker fired boilers 6184 to 6190 additional furnace height and volume for S.H.B.I. standard may be provided in base.

Specifications and Setting Measurements

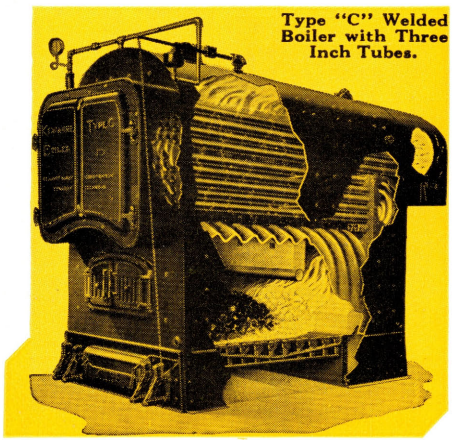
Boiler Number	6177	6178	6179	6180	6181	6182	6183	6184	6185	6186	6187	6188	6189	6190
Rating—Steam Radiation Sq. Ft.	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation Sq. Ft.	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour 1000's	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.) Sq. Ft.	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.) Cu. Ft.	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Net Furnace Volume, Oil-Gas Cu. Ft.	62.8	62 8	67.3	77.3	87.8	102.4	117.7	140.2	147.8	165.7	174.0	237.3	267.0	303.9
Firebox Volume Above Mud Ring Cu. Ft.	54.5	54.5	58.1	68.1	76.6	90.6	103.2	117.5	123.4	137.5	144.0	197.1	222.0	235.2
Average Firebox Height (see Note 5) In.	41.6	41.6	41.6	43.3	43.3	44.8	44.8	46.3	46.3	46.4	46.4	51.0	52.6	52.6
Added Furnace Hgt., for Stoker (SHBI) In.	.....	.....	.....	.....	.....	.....	.....	2	6	9	12	12	15	19
Hi-Firebox Volume Cu. Ft.	.....	.....	.....	.....	.....	.....	.....	122.6	139.4	164.1	181.2	243.5	285.2	320.1
Plan Area Sq. Ft.	15.7	15.7	16.7	18.9	21.3	24.2	27.6	30.5	32.0	35.5	37.2	46.4	50.6	53.6
Breeching Diameter In.	20	21	22	23	24	26	28	30	31	33	35	39	41	43
Stack Diameter In.	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height Ft.	40	45	50	50	55	50	60	65	80	75	85	85	90	105
Breeching Diameter, Two Boilers In.	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers In.	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Ft.	50	55	60	60	65	60	70	75	90	85	95	95	100	115
Steam Supply Size In.	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size In.	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size In.	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight Lbs.	5100	5600	6100	7000	7800	8900	10100	11900	13500	15100	16700	19800	22700	25300
A—Boiler Diameter In.	42	42	42	48	48	54	54	60	60	66	66	72	78	78
B—Boiler Length Ft. In.	8–2	8–8	9–6	9–7	11–0	10–8½	12–4½	12–9½	14–9½	14–0½	15–7½	16–4½	17–1	19–4
C—Boiler Height Overall In.	81	81	81	86½	86½	92½	92½	100½	100½	105	105	112	117	117
D—Water Line In.	70	70	70	73½	73½	78	78	84	84	86	86	94½	96	96
E—Water Column Height In.	68	68	68	71½	71½	76	76	82	82	84	84	92½	94	94
F—Steam Supply Height In.	81½	81½	81½	88	88	94	94	102	102	106	106	113	118	118
G—Breeching Connection Height In.	70	70	70	74	74	77½	77½	83½	83½	85½	85½	93	96	96
H—Rear Stand Height In.	38	38	38	38	38	38	38	40	40	38	38	39	38	38
J—Steam Supply Location Ft. In.	1–5	1–5	1–5	1–5	1–5	2–0	2–6	2–6	10–6	2–9	11–0	11–9	12–3	13–0
K—Safety Valve Location In.	18	18	18	18	18	18	18	18	16	18	18	18	18	24
L—Safety Valve Location In.	.....	.....	.....	.....	.....	.....	.....	12	12	12	12	12	14	15
N—Return Height In.	18	18	18	18	18	18	18	21	21	21	21	22	22	22
O—Firebox Width In.	36½	36½	36½	42½	42½	48½	48½	53½	53½	59½	59½	65½	71½	71½
P—Firebox Length In.	62	62	66	64	72	72	82	82	86	86	90	102	102	108
R—Firebox Height In.	42	42	42	44	44	46	46	47	47	47½	47½	50½	53½	53½
T—Base Width In.	47½	47½	47½	53½	53½	59½	59½	66	66	72	72	78	84	84
U—Base Length In.	71½	71½	74½	73½	82	82	92	93	97	97	101½	113½	113½	119½
V—Base Height In.	14	14	14	14	14	14	14	17	17	17	17	17	17	17
W—Breeching Connection Length In.	32	32	32	34	34	40	40	44	44	51	51	54	60	60
X—Breeching Connection Width In.	9	9	9	11	11	12	12	14	14	15	15	19	18	18
Y—Breeching Connection Location In.	6½	6½	6½	7½	7½	8	8	9	9	9½	9½	11½	11	11
Z—Rear Door Clearance In.	42	42	42	48	48	30	30	33	33	36	36	39	42	42
AA—Furnace Length In.	53	53	57	55	63	63	73	73	77	77	81	93	93	99
BB—Furnace Width In.	30	30	30	33	33	36	36	42	42	48	48	54	60	60
CC—Rear Stand Location In.	.....	.....	.....	.....	39	36	46	48	66	57	72	66	75	96
DD—Foundation Width In.	54	54	54	60	60	65½	65½	70½	70½	76½	76½	82	88	88
EE—Foundation Length In.	72½	72½	75½	74½	83	83	93	94	98	98	102½	114½	114½	120½
HH—Burners Location In.	.....	.....	.....	7	7	8½	8½	9½	9½	11	11	12½	14	14
JJ—Bolt Centers in Plate In.	37½	37½	37½	43½	43½	49½	49½	55½	55½	61½	61½	67½	73½	73½
KK—Bolt Centers in Plate In.	4¾	4¾	4¾	4¾	4¾	4¾	4¾	5¾	5¾	5¾	5¾	5¾	5¾	5¾
LL—Hearth to Bottom of Boiler In.	14	14	14	14	14	14	14	17	17	17	17	17	17	23
MM—Pit Depth In.	9	9	9	10	10	10	10	10	11	11	17	12	15	24
NN—Total Area Ports or Openings Sq. In.	73	83	92	110	127	155	182	230	273	320	365	455	545	640
Size of Dampered Openings In.	6x12	6x14	6x16	7x16	7x18	7x22	7x26	2–7x16	2–8x17	2–8x20	2–9x20	2–9x25	2–10x27	2–11x29
Number of Fire Brick	370	380	400	425	460	565	620	715	740	780	920	920	1000	1275
*Outside Surface to Cover Sq. Ft.	110	115	125	140	160	170	195	220	250	260	285	330	360	410

*Front smokebox and front head below smokebox NOT included.

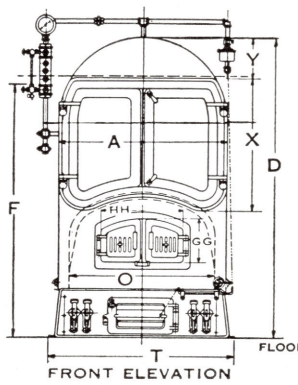
KEWANEE Type "C" Welded Boiler —For Coal

This Type "C" is a welded compact boiler. Its corrugated crown sheet has much greater strength and adds more heating surface where most effective use may be made of intense heat for quick steaming.

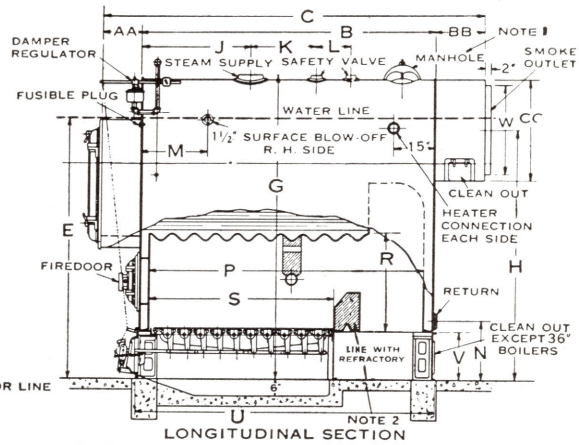
Boilers 774-790 with smokeless arch and drum are for use with high-volatile bituminous coal; Nos. 2773-2790 without arch are direct draft for use with smokeless fuels such as low-volatile bituminous coal, coke or anthracite.



Type "C" Welded Boiler with Three Inch Tubes.



FRONT ELEVATION



LONGITUDINAL SECTION

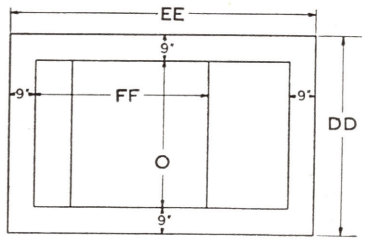
Equipment—Steel base fully assembled with heavy rocking (or dumping) grates and cast iron ash pit front, four cast iron corner posts, heavy steel flanged panels with rear cleanout opening except 36" boilers; refractory bridgewall and header wall; insulated flue door; firedoor with liner; smokebox soot cleanout doors. Type "C" may be fitted at factory with Kewanee indirect hot water heating coils at extra cost.

Firing Tools—Hoe, poker, slice bar and flue cleaner and handle.

Trimmings for Steam Only—Safety valve, steam gauge with syphon and cock; damper regulator; water column with water gauge, glass and cocks.

Note 1. Manhole furnished on boilers 782, 2782, 1782, 0782 and larger.

Note 2. Bridgewall omitted on boilers 2773; 774, 2774; 775, 2775.



FOUNDATION PLAN

Footings may be required under base corner posts depending on soil conditions.

For overall clearance add 1½" for heads or 2½" for flange hub to shell width A.—

All front smokeboxes have double doors.

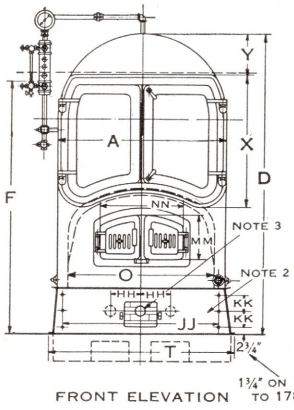
Type "C" conforms to the A.S.M.E. boiler construction code for 15 lbs., and for rating with the S.H.B.I. simplified practice recommendation.

Specifications and Setting Measurements

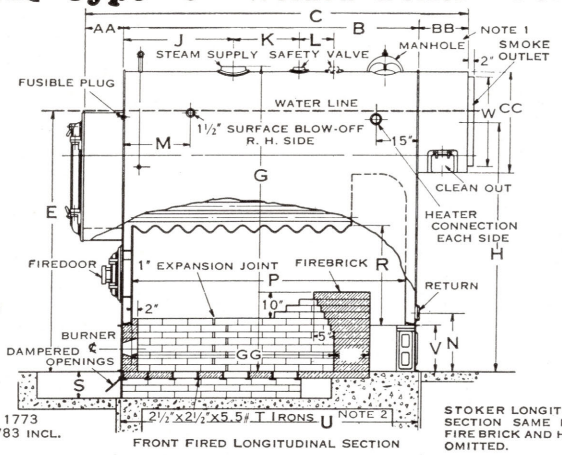
Boiler Number.....With Arch / Without Arch	2773	774 2774	775 2775	776 2776	777 2777	778 2778	779 2779	780 2780	781 2781	782 2782	783 2783	784 2784	785 2785	786 2786	787 2787	788 2788	789 2789	790 2790
Rating—Steam Radiation.....Sq. Ft.	2200	2600	3000	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Water Radiation.....Sq. Ft.	3520	4160	4800	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Btu. per Hour.....1000's	528	624	720	840	960	1080	1200	1440	1680	2040	2400	3000	3600	4200	4800	6000	7200	8400
Heating Surface (SHBI min.) Sq. Ft.	158	186	215	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area (SHBI min.).....Sq. Ft.	8.9	9.7	10.5	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Breeching Diameter.....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
Stack Diameter.....In.	15	16	16	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height.....Ft.	45	50	50	55	55	55	60	60	65	65	70	70	75	75	80	95	95	110
Breeching Diameter, Two Boilers..In.	23	24	24	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers.....In.	21	22	22	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers.....Ft.	55	60	60	65	65	65	70	70	75	75	80	80	85	85	90	105	105	120
Steam Supply Size.....In.	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size.....In.	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Water Heater Connection Size.....In.	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Safety Valve Size.....In.	1½	2	2	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight— 700 Series.....Lb.	.....	3900	4400	5000	5500	6000	6500	7500	8400	9700	11000	12900	14900	16600	18400	22000	25200	28400
2700 Series.....Lb.	3400	3800	4300	4800	5300	5800	6300	7200	8100	9400	10600	12500	14400	16100	17900	21200	24400	27500
A—Boiler Width.....In.	36	36	36	36	42	42	42	48	48	54	54	60	66	72	72	78	84	84
B—Boiler Length.....Ft. In.	4–2	4–8	5–2	6–0½	5–10½	6–6½	7–2	7–2½	8–5	7–8	8–11½	9–2½	9–11½	9–3½	10–6½	11–1½	11–4½	13–1½
C—Boiler Length Overall.....Ft. In.	5–10½	6–4½	6–10½	7–9	7–10½	8–6½	9–2	9–4½	10–7	9–11	11–2½	11–6½	12–3½	12–1½	13–4½	14–9½	14–2½	15–11½
D—Boiler Height Overall.....In.	77½	77½	77½	77½	83½	83½	83½	86½	86½	99	99	108½	112	118	118	122	135	135
E—Water Line.....In.	69	69	69	69	72	72	72	73	73	85	85	94	95	101	101	103	114	114
F—Water Column Height.....In.	65½	65½	65½	65½	68	68	68	70	70	81	81	90	92	97½	97½	99½	110½	110½
G—Steam Supply Height.....In.	79½	79½	79½	79½	85½	85½	85½	88½	88½	101	101	110½	114	120	120	124	137	137
H—Smoke Outlet Hgt. above Floor.In.	64½	64½	64½	64½	69	69	69	70	70	81½	81½	90½	93	96	96	99	110	110
J—Steam Supply Location.....In.	10½	14	14	16	14	16	18	18	18	18	21	21	21	21	21	21	21	24
K—Safety Valve Location.....In.	8½	10	10	10	10	10	11	14	14	13	14	14	14	14	14	14	14	15
L—Second Safety Valve Location..In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	15	12	10	11	11	12
M—Surface Blow-Off Location....In.	12	12	12	12	12	12	12	12	12	18	24	24	24	24	24	24	24	24
N—Return Height.....In.	18	18	18	18	18	18	18	18	18	18	18	21	21	21	21	22	26	26
O—Firebox and Ash Pit Width....In.	30	30	30	30	36	36	36	42	42	47½	47½	52½	58½	65	65	70	76	76
P—Firebox Length.....In.	43½	49½	55½	66	64	72	79½	80	94½	85½	101	103	112	104	119	136	128½	149½
R—Firebox Height.....In.	26	26	26	26	29	29	29	30	30	34	34	36	38	40	40	42	42	42
S—Grate Length.....In.	43	49	55	55	50	56	62	62	68	68	74	74	74	74	80	80	80	86
T—Base Width.....In.	41½	41½	41½	41½	47½	47½	47½	53½	53½	59½	59½	66	72	78	78	84	90½	90½
U—Base Length.....In.	52	58	64	74½	72½	80½	88	88½	103	94	109½	113	122	114	129	146	139	160
V—Base Height.....In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	21	21
W—Smoke Outlet Diameter.....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
X—Front Smokebox Height.....In	34	34	34	34	34	34	34	35	35	42	42	48	48	51	51	52	61	61
Y—Fr. Smkbx. Top to Boiler Top .In	10	10	10	10	13	13	13	14	14	16	16	16	18	17	17	19	21	21
AA—Front Smokebox Depth.....In	9	9	9	9	10	10	10	11	11	12	12	12	12	14	14	14	14	14
BB—Rear Smokebox Depth.....In.	11½	11½	11½	11½	14	14	14	15	15	15	15	16	16	20	20	20	20	20
CC—Rear Smokebox Height.....In.	26	26	26	26	29	29	29	31½	31½	35	35	36	39	43	43	45½	49½	49½
DD—Foundation Width.....In.	48	48	48	48	54	54	54	60	60	65½	65½	70½	76½	83	83	88	94	94
EE—Foundation Length.....In.	53½	59½	65½	76	74	82	90	90	104½	96	111	114½	123½	115½	130½	147½	140½	161½
FF—Length of Ash Pit.....In.	35½	41½	47	51	45	51	57	57	63	63	69	70	70	70	76½	76½	76½	82½
*Outside Surface to Cover.....Sq. Ft.	63	69	76	87	94	103	112	120	137	150	172	193	220	223	248	292	307	348
GG x HH—Fire Door Opening....In.	One 11x16				One 12x20		One 15x23			One 16x30		One 16x36			Two 15x23			
Fire Door Style.....	Single Frame and Door									Single Frame and Double Doors					R&L Single Fr.& Dr.			

*Front smokebox and front head below smokebox NOT included.

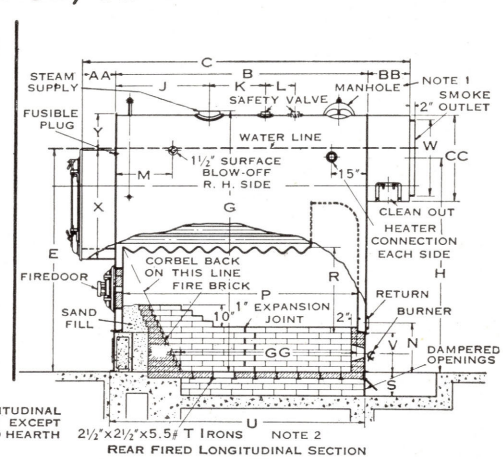
KEWANEE **Type "C"** Welded Boiler For Oil, Gas or Stoker



FRONT ELEVATION

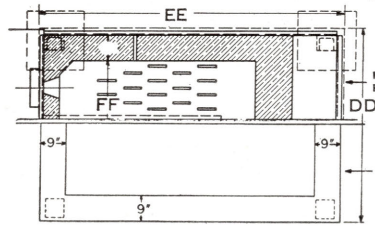


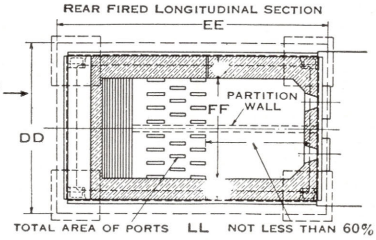
FRONT FIRED LONGITUDINAL SECTION



REAR FIRED LONGITUDINAL SECTION

STOKER LONGITUDINAL SECTION SAME EXCEPT FIRE BRICK AND HEARTH OMITTED.





Equipment: Steel base with four cast Iron corner posts, heavy steel flanged panels have front and rear 8½ x 11½ opening; insulated flue door; firedoor with liner; and flue cleaner and handle.

Trimmings for Steam Only: Safety valve, steam gauge with syphon and cock; water column with water gauge, glass and cocks.

Note 2. Steel plate with dampers, or for special burner mountings, also firebrick lining and hearth angles, not furnished by K.B. Corp.

Note 4. If extended water leg 7L70 Series (next page) is not ordered for stoker-firing, additional furnace height and volume required by S.H.B.I. code may be provided in base.

For Cut-away View Type "C" Oil-Gas Series, also Stoker, see page 24

Note 3. When using one burner, place on center line of boiler, and use single hearth plan instead of double.

Specifications and Setting Measurements

Boiler Number.....Oil or Gas Stoker	1773 0773	1774 0774	1775 0775	1776 0776	1777 0777	1778 0778	1779 0779	1780 0780	1781 0781	1782 0782	1783 0783	1784 0784	1785 0785	1786 0786	1787 0787	1788 0788	1789 0789	1790 0790
Rating—Steam Radiation.....Sq. Ft.	2680	3160	3650	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation.....Sq. Ft.	4280	5050	5840	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour.....1000's	643	758	876	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SH BI min.).Sq. Ft.	158	186	215	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.).Cu. Ft.	19.2	22.6	26.1	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Net Furnace Volume, Oil-Gas . Cu. Ft.	25.6	28.9	30.9	36.5	46.8	50.6	54.4	62.8	73.1	88.2	98.3	126.0	160.8	181.8	200.2	251.4	284.1	320.2
Firebox Vol. above Mud Ring . .Cu. Ft.	21.0	23.2	25.3	29.2	37.9	41.8	45.5	56.0	64.6	77.0	88.7	107.9	138.9	149.2	167.7	216.6	226.6	258.2
Average Firebox Height, See Note 4.In.	27.9	27.0	26.3	25.4	28.5	28.0	27.6	28.8	28.2	32.7	32.0	34.5	36.5	38.4	37.7	39.2	40.3	39.5
Plan Area.....Sq. Ft.	9.1	10.3	11.5	13.8	15.9	17.9	19.8	23.4	27.5	28.2	33.3	37.5	45.7	46.7	53.4	66.3	67.5	78.5
Breeching Diameter.....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
Stack Diameter.....In.	15	16	16	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height.....Ft.	35	35	40	45	40	45	50	50	60	55	65	65	70	65	75	90	80	100
Breeching Diameter, Two Boilers..In.	23	24	24	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers.....In.	21	22	22	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers.....Ft.	45	45	50	55	50	55	60	60	70	65	75	75	80	75	85	100	90	110
Steam Supply Size.....In.	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size.....In.	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Water Heater Connection Size.....In.	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Safety Valve Size.....In.	1½	2	2	2	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Shipping Weight.....Lb.	2900	3300	3700	4100	4600	5000	5400	6100	6900	8000	9100	10700	12300	13800	15400	18100	20900	23400
A—Boiler Width.....In.	36	36	36	36	42	42	42	48	48	54	54	60	66	72	72	78	84	84
B—Boiler Length.....Ft. In.	4-2	4-8	5-2	6-0½	5-10½	6-6½	7-2	7-2½	8-5	7-8	8-11½	9-2½	9-11½	9-3½	10-6½	11-1½	11-4½	13-1½
C—Boiler Length Overall.....Ft. In.	5-10½	6-4½	6-10½	7-9	7-10½	8-6½	9-2	9-4½	10-7	9-11	11-2½	11-6½	12-3½	12-1½	13-4½	14-9½	14-2½	15-11½
D—Boiler Height Overall.....In.	77½	77½	77½	77½	83½	83½	83½	86½	86½	99	99	108½	112	118	118	122	135	135
E—Water Line.....In.	69	69	69	69	72	72	72	73	73	85	85	94	95	101	101	103	114	114
F—Water Column Height.....In.	65½	65½	65½	65½	68	68	68	70	70	81	81	90	92	97½	97½	99½	110½	110½
G—Steam Supply Height.....In.	79½	79½	79½	79½	85½	85½	85½	88½	88½	101	101	110½	114	120	120	124	137	137
H—Smoke Outlet Hgt. above Floor. In.	64½	64½	64½	64½	69	69	69	70	70	81½	81½	90½	93	96	96	99	110	110
J—Steam Supply Location.....In.	10½	14	14	16	14	16	18	18	18	18	21	21	21	21	21	21	21	24
K—Safety Valve Location.....In.	8½	10	10	10	10	10	11	14	14	13	14	14	14	14	14	14	14	15
L—Second Safety Valve Location..In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	15	12	10	11	11	12
M—Surface Blow-Off Location....In.	12	12	12	12	12	12	12	12	12	18	24	24	24	24	24	24	24	24
N—Return Height.....In.	18	18	18	18	18	18	18	18	18	18	18	21	21	21	21	22	26	26
O—Firebox Width.....In.	30	30	30	30	36	36	36	42	42	47½	47½	52½	58½	65	65	70	76	76
P—Firebox Length.....In.	43½	49½	55½	66	64	72	79½	80	94½	85½	101	103	112	104	119	136	128½	149½
R—Firebox Height.....In.	26	26	26	26	29	29	29	30	30	34	34	36	38	40	40	42	42	42
S—Pit Depth.....In.	.....	.....	.....	9	9	9	9	10	10	10	10	10	11	11	12	12	13	13
T—Base Width.....In.	41½	41½	41½	41½	47½	47½	47½	53½	53½	59½	59½	66	72	78	78	84	90½	90½
U—Base Length.....In.	52	58	64	74½	72½	80½	88	88½	103	94	109½	113	122	114	129	146	139	160
V—Base Height.....In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	21	21
W—Smoke Outlet Diameter.....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
X—Front Smokebox Height.....In.	34	34	34	34	34	34	34	35	35	42	42	48	48	51	51	52	61	61
Y—Fr. Smkbx. Top to BoilerTop..In.	10	10	10	10	13	13	13	14	14	16	16	16	18	17	17	19	21	21
AA—Front Smokebox Depth.....In.	9	9	9	9	10	10	10	11	11	12	12	12	12	14	14	14	14	14
BB—Rear Smokebox Depth.....In.	11½	11½	11½	11½	14	14	14	15	15	15	15	16	16	20	20	20	20	20
CC—Rear Smokebox Height.....In.	26	26	26	26	29	29	29	31½	31½	35	35	36	39	43	43	45½	49½	49½
DD—Foundation Width.....In.	48	48	48	48	54	54	54	60	60	65½	65½	70½	76½	83	83	88	94	94
EE—Foundation Length.....In.	53½	59½	65½	76	74	82	90	90	104½	96	111	114½	123½	115½	130½	147½	140½	161½
FF—Furnace Width.....In.	24	24	24	24	30	30	30	33	33	36	36	42	48	54	54	60	66	66
GG—Furnace Length.....In.	37	43	46	56	54	58	62	57	69	68	74	76	81	85	92	98	98	110
HH—Burners Location.....In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	8¼	8½	9½	11	12½	12½	14	15	15
JJ—Bolt Centers in Plate.....In.	31½	31½	31½	31½	37½	37½	37½	43½	43½	49½	49½	55½	61½	67½	67½	73½	79½	79½
KK—Bolt Centers in Plate.....In.	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	5¾	5¾	5¾	5¾	5¾	7¾	7¾
LL—Total Area Ports or Opgs..Sq. In.	.....	.....	.....	64	73	83	92	110	127	155	182	230	273	320	365	455	545	640
MM x NN—Fire Door Opening...In.	One 11x16			One 12x20			One 15x23			One 16x30			One 16x36			Two 15x23		
Fire Door Style.....	Single Frame and Door									Single Frame and Double Doors						R&L Single Fr.& Dr.		
Size of Dampered Openings.....In.	.....	.....	.....	6x11	6x12	6x14	6x16	7x16	7x18	7x22	7x26	2-7x16	2-8x17	2-8x20	2-9x20	2-9x25	2-10x27	2-10x32
Number of Fire Brick.....	290	320	335	380	450	470	490	500	560	610	640	770	850	920	960	1050	1220	1300
*Outside Surface to Cover.....Sq. Ft.	75	81	88	99	109	118	127	137	155	173	194	219	249	258	283	329	347	388

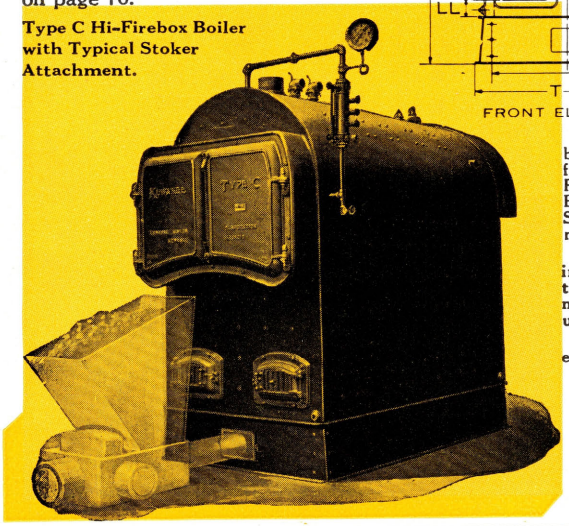
*Front smokebox and front head below smokebox IS included.

KEWANEE **Type "C"** Hi-Firebox Welded—7L70 Series

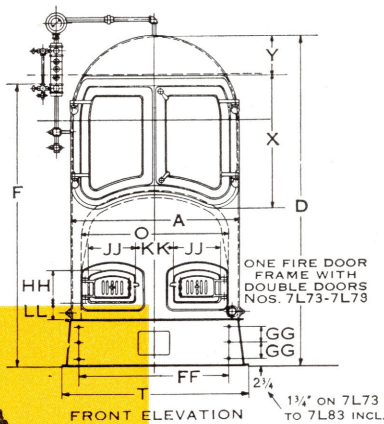
For Oil, Gas or Stoker

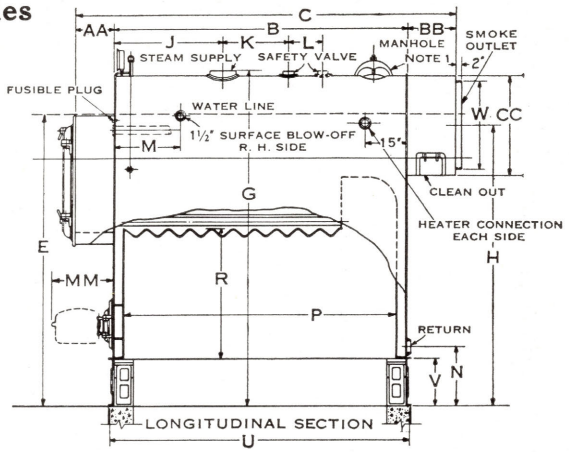
The Kewanee Hi-Firebox boiler is built exactly right for stokers, This 7L70 series has long water legs providing the necessary height in firebox to comply with S.H.B.I. code for stoker firing.

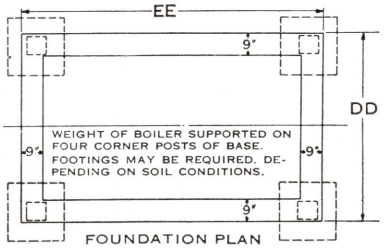
Type "C" high operating efficiency insures life-long economy with any Oil, Gas or Stoker equipment. 27L70 Series Hi-Firebox is built with grates rated for hand-fired coal and using chimney heights on page 16.



Type C Hi-Firebox Boiler with Typical Stoker Attachment.







7L70 Series conforms to A.S.M.E. boiler construction code for 15 lbs., and for rating with the Industry Standard Practice approved by the Steel Heating Boiler Institute in cooperation with U. S. Department of Commerce Recommendation R 157.

In the Kewanee Process of Corrugating Type "C" Crown Sheets not even the slightest reduction in metal thickness is discernible by micrometer measurements.

Note 1. Manhole furnished on boilers 7L82 and larger.

Equipment: Steel base assembled with four cast iron corner posts, heavy steel flanged panels have 8½ x 11½ front and rear opening; insulated flue door; and flue cleaner and handle. 7L70 "C" may be fitted at factory with Kewanee Hot Water Heating Coils at extra cost.

Trimmings for steam only: Safety valve, steam gauge with syphon and cock; water column with water gauge, glass and cocks. All front smokeboxes have double doors.

Note 2. Average firebox height, computed by dividing the firebox volume by the plan area, complies with S.H.B.I. code when stoker dead plates are located at top of mud ring.

Specifications and Setting Measurements

Boiler Number	7L73	7L74	7L75	7L76	7L77	7L78	7L79	7L80	7L81	7L82	7L83	7L84	7L85	7L86	7L87	7L88	7L89	7L90
Rating—Steam Radiation....Sq. Ft.	2680	3160	3650	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation....Sq. Ft.	4280	5050	5840	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour....1000's	643	758	876	1020	1166	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Heating Surface (SHBI min.)..Sq. Ft.	158	186	215	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Furnace Volume (SHBI min.)Cu. Ft.	19.2	22.6	26.1	30.4	34.8	39.1	43.5	52.1	60.8	73.8	86.8	108.5	130.2	151.8	173.5	216.9	260.3	303.6
Average Firebox Height, See Note 2.In.	33.9	33.0	32.3	31.4	34.5	34.0	34.0	37.8	37.2	42.7	42.4	46.5	48.5	52.4	54.7	58.2	63.5	66.8
Firebox Vol. above Mud Ring..Cu. Ft.	25.5	28.3	31.1	36.1	45.8	50.8	56.0	73.5	85.2	100.5	117.4	145.4	184.5	203.7	243.4	321.6	357.2	437.0
Plan Area....Sq. Ft.	9.1	10.3	11.5	13.8	15.9	17.9	19.8	23.4	27.5	28.2	33.3	37.5	45.7	46.7	53.4	66.3	67.5	78.5
Breeching Diameter....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
Stack Diameter....In.	15	16	16	17	18	19	20	21	22	24	26	28	29	31	33	36	38	40
Stack Height, Stoker Fired....Ft.	35	35	40	45	40	45	50	50	60	55	65	65	70	65	75	90	80	100
Breeching Diameter, Two Boilers..In.	23	24	24	25	26	27	28	30	31	34	36	40	41	44	47	50	54	56
Stack Diameter, Two Boilers....In.	21	22	22	23	24	25	26	28	29	32	34	37	38	41	44	47	50	52
Stack Height, Two Boilers Stokered Ft.	45	45	50	55	50	55	60	60	70	65	75	75	80	75	85	100	90	110
Steam Supply Size....In.	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Size....In.	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	6	6	6
Water Heater Connection Size....In.	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Safety Valve Size....In.	1½	2	2	2	2	2	2½	2½	2½	3	3	2–2	2–2½	2–2½	2–2½	2–2½	2–3	2–3
Shipping Weight, Stoker Fired....Lb.	3100	3500	3900	4400	4900	5400	5800	6700	7600	8800	10000	11800	13600	15300	17000	20100	23200	26100
A—Boiler Width....In.	36	36	36	36	42	42	42	48	48	54	54	60	66	72	72	78	84	84
B—Boiler Length....Ft. In.	4–2	4–8	5–2	6–0½	5–10½	6–6½	7–2	7–2½	8–5	7–8	8–11½	9–2½	9–11½	9–3½	10–6½	11–1½	11–4½	13–1½
C—Boiler Length Overall....Ft. In.	5-10½	6-4½	6-10½	7-9	7-10½	8-6½	9-2	9-4½	10-7	9-11	11-2½	11-6½	12-3½	12-1½	13-4½	14-9½	14-2½	15-11½
D—Boiler Height Overall....In.	82½	82½	82½	82½	88½	88½	88½	94½	94½	108	108	119½	123	131	134	140	157	161
E—Water Line Height....In.	74	74	74	74	77	77	77	81	81	94	94	105	106	114	117	121	136	140
F—Water Column Height....In.	70½	70½	70½	70½	73	73	73	78	78	90	90	101	103	110½	113½	117½	132½	136½
G—Steam Supply Height....In.	84½	84½	84½	84½	90½	90½	90½	96½	96½	110	110	121½	125	133	136	142	159	163
H—Smoke Outlet Hgt. above Floor. In.	69½	69½	69½	69½	74	74	74	78	78	90½	90½	101½	104	109	112	117	132	136
J—Steam Supply Location....In.	10½	14	14	16	14	16	18	18	18	18	21	21	21	21	21	21	21	24
K—Safety Valve Location....In.	8½	10	10	10	10	10	11	14	14	13	14	14	14	14	14	14	14	15
L—Second Safety Valve Location..In.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	15	12	10	11	11	12
M—Surface Blow-Off Location....In.	12	12	12	12	12	12	12	12	12	18	24	24	24	24	24	24	24	24
N—Return Height....In.	18	18	18	18	18	18	18	18	18	18	18	21	21	21	21	22	26	26
O—Firebox Width....In.	30	30	30	30	36	36	36	42	42	47½	47½	52½	58½	65	65	70	76	76
P—Firebox Length....In.	43½	49½	55½	66	64	72	79½	80	94½	85½	101	103	112	104	119	136	128½	149½
R—Firebox Height....In.	31	31	31	31	34	34	34	38	38	43	43	47	49	53	56	60	64	68
T—Base Width....In.	41½	41½	41½	41½	47½	47½	47½	53½	53½	59½	59½	66	72	78	78	84	90½	90½
U—Base Length....In.	52	58	64	74½	72½	80½	88	88½	103	94	109½	113	122	114	129	146	139	160
V—Base Height....In.	14	14	14	14	14	14	14	14	14	14	14	17	17	17	17	17	21	21
W—Smoke Outlet Diameter....In.	19	19	19	19	22	22	22	24	24	28	28	30	31	35	35	39	41	43
X—Front Smokebox Height....In.	34	34	34	34	34	34	34	35	35	42	42	48	48	51	51	52	61	61
Y—Fr. Smkbox. Top to Boiler Top..In.	10	10	10	10	13	13	13	14	14	16	16	16	18	17	17	19	21	21
AA—Front Smokebox Depth....In.	9	9	9	9	10	10	10	11	11	12	12	12	12	14	14	14	14	14
BB—Rear Smokebox Depth....In.	11½	11½	11½	11½	14	14	14	15	15	15	15	16	16	20	20	20	20	20
CC—Rear Smokebox Height....In.	26	26	26	26	29	29	29	31½	31½	35	35	36	39	43	43	45½	49½	49½
DD—Foundation Width....In.	48	48	48	48	54	54	54	60	60	65½	65½	70½	76½	83	83	88	94	94
EE—Foundation Length....In.	53½	59½	65½	76	74	82	90	90	104½	96	111	114½	123½	115½	130½	147½	140½	161½
FF—Bolt Centers in Front Plate..In.	31½	31½	31½	31½	37½	37½	37½	43½	43½	49½	49½	55½	61½	67½	67½	73½	79½	79½
GG—Bolt Centers in Front Plate..In.	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	4¾	5¾	5¾	5¾	5¾	5¾	7¾	7¾
HH—Firedoor Height....In.	13½	13½	13½	13½	13½	13½	13½	11	11	11	11	12	12	12	12	15	15	15
JJ—Firedoor Width....In.	27½	27½	27½	27½	27½	27½	27½	16	16	16	16	20	20	20	20	23	23	23
KK—Space Between Firedoors....In.	.....	.....	.....	.....	.....	.....	.....	7	7	12	12	9	15	20	20	20	26	26
LL—Hgt. Doors from Bottom Blr..In.	9½	9½	9½	9½	8½	8½	8½	8	8	8	8	8	8	8	8	10	10	10
MM—Opened Firedoor to Boiler..In.	20	20	20	20	20	20	20	22½	22½	22½	22½	26½	26½	26½	26½	29½	29½	29½
*Outside Surface to Cover....Sq. Ft.	79	85	93	104	116	125	134	152	170	192	215	245	277	291	327	385	415	463

*Front smokebox and front head below smokebox IS included.

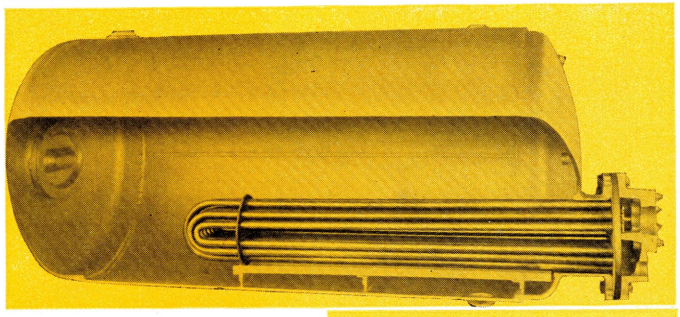
KEWANEE Storage Water Heaters

Sizes and Capacities

Heater No.	Storage Capacity Gallons	Tank Size Dia.	Lgth.
2404	95	24 x	48
2405	118	24 x	60
2406	141	24 x	72
2407	164	24 x	84
3005	180	30 x	60
3006	215	30 x	72
3007	255	30 x	84
3008	285	30 x	96
3606	310	36 x	72
3607	365	36 x	84
3608	415	36 x	96
3609	475	36 x	108
3610	500	36 x	120
4207	500	42 x	84
4208	575	42 x	96
4209	650	42 x	108
4210	720	42 x	120
4212	860	42 x	144
4214	1000	42 x	168
4810	940	48 x	120
4812	1125	48 x	144
4814	1300	48 x	168
5410	1190	54 x	120
5412	1425	54 x	144
5414	1665	54 x	168
6010	1400	60 x	120
6012	1700	60 x	144
6014	2000	60 x	168
6016	2240	60 x	192

Coil Specifications

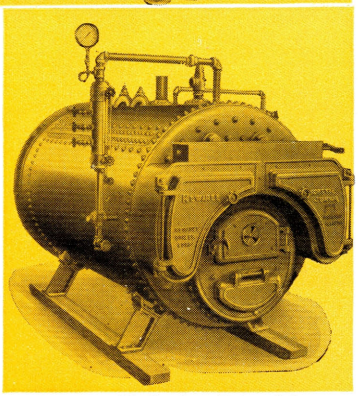
Coil Size	Heating Capac. G.P.H. 40° to 180° F. With Steam at Atmospheric Pressure	Heating Surface in Sq. Ft.	Horizontal Tank Min. Length
A — 2.5	50	2.5	18
A — 5	100	5	30
A —10	200	10	66
B —15	300	15	56
B —20	400	20	52
B —25	500	25	66
C —30	600	30	60
C —40	800	40	60
D —50	1000	50	60
D —75	1500	75	78
D —100	2000	100	102
E —150	3000	150	90
E —200	4000	200	114
E —250	5000	250	114
F —300	6000	300	102



Ample hot water for steady service and sudden demands.

KEWANEE STANDARD STORAGE HEATERS use exhaust or live steam to save extra fuel.

15 Standard Coil Elements in 29 standard size storage tanks serve all ordinary capacities out of stock.



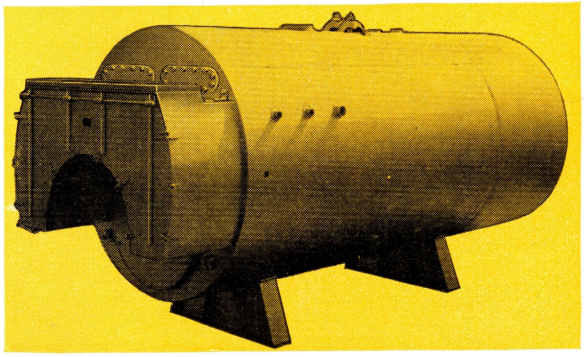
Return Tubular Portable

Kewanee Scotch Marine Boilers

KEWANEE SCOTTIE JUNIOR is a portable Riveted Boiler for High Pressure Steam in small industrial usage. Each one a real fuel saver and very economical in first cost. Conveniently compact. . . yet easily accessible.

KEWANEE Welded Scotch Marine Series M-8000 is a modern low pressure steam boiler, economical in first cost to buy and install quickly. High operating efficiency makes it easy on the annual fuel bill.

More particularly adapted for low ceiling and limited floor area buildings of any type and size.



Kewanee Scottie Jr. Boiler for High Pressure

Specifications and Measurements A.S.M.E. Code

Boiler Number	HM 9	HM 15	HM 20	HM 25	HM 30
Horse Power	9.9	15	20	25	30
Working Pressure....Lbs.	100	100	100	100	100
Rating—Steam Radiation....Sq. Ft.	1400	2100	2800	3500	4200
Shell Diameter....In.	48	48	48	54	54
Shell Length....In.	54	75	96	96	113
Boiler Height Overall Shell....In.	61	61	61	66¾	66¾
Water Line....In.	52¼	52¼	52¼	56¾	56¾
Shipping Weight— On Skids with Regular Fixtures, less Stack....Lbs.	4800	6300	7000	7800	8500

Kewanee Scotch Marine Type Boiler Low Pressure M-8000 Series Mechanically Fired

Boiler Number	M-8173	M-8174	M-8175	M-8176	M-8177	M-8178	M-8179	M-8180	M-8181	M-8182	M-8183	M-8184	M-8185	M-8186	M-8187	M-8188	M-8189	M-8190
Rating—Steam Radiation...Sq. Ft.	2680	3160	3650	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Radiation...Sq. Ft.	4280	5050	5840	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Btu. per Hour....1000's	643	758	876	1020	1116	1313	1459	1750	2040	2479	2916	3643	4373	5100	5830	7286	8743	10200
Shell Diameter....In.	42	42	48	48	48	54	54	60	60	66	66	72	72	78	78	84	90	96
Shell Length....Ft., In.	8–8¾	9–10¾	8–2	9–2	10–2	9–2½	9–11	9–4	10–5¾	10–7	11–11½	12–9	14–8	14–10½	16–6	18–2	18–8	18–0¾
Boiler Height Over Shell....In.	54¾	54¾	60¾	60¾	60¾	66¾	66¾	72¾	72¾	78¾	78¾	84¾	84¾	90¾	90¾	97	103	109
Water Line....In.	44¾	44¾	50	50	50	54½	54½	59	59	64	64	69½	69½	71¼	71¼	74¾	80	86
Shipping Weight....Lbs.	3300	3700	4500	4900	5300	5700	6100	6900	7500	8400	9600	12700	14200	17400	19000	22500	25750	28300

Kewanee HI-TEST Boiler Fusion-Welded Two-Pass Portable

With Refractory Lined Firebox

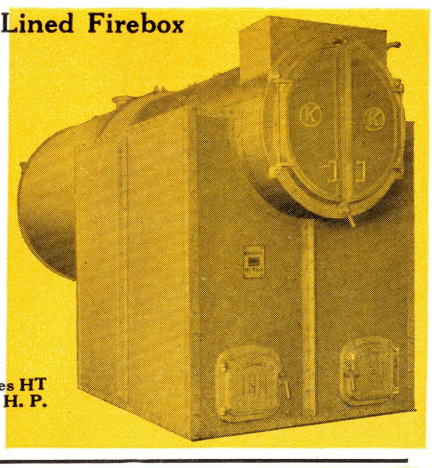
Specifications and Measurements. A.S.M.E. Code.

Boiler Number	HT 50	HT 60	HT 75	HT 100	HT 125	HT 150
Horsepower	50	60	75	100	125	150
Steam Radiation— Hand Fired....Sq. Ft.	7000	8400	10500	14000	17500	21000
Mechanically Fired....Sq. Ft.	8500	10200	12750	17000	21250	25500
Heating Surface....Sq. Ft.	500	600	750	1000	1250	1500
Grate Area or Plan Area..Sq. Ft.	18.3	20.3	22.5	27.5	30.2	35.7
Furnace Volume....Cu. Ft.	72	90	105	140	181	213
Cylinder Diameter—Front....In.	42	42	42	48	54	54
—Rear....In.	66	66	72	78	84	84
Boiler Length Overall....Ft., In.	12–5	13–5	14–3	15–5	16–2	18–6
Boiler Height, Floor to Top of Shell....In.	107	113	113	126	142	142
Water Line Height....In.	95	101	101	111	124	124
Approximate Shipping Weight— Boiler, Hand-Fired 125 Lb..Lbs.	13660	15380	18870	22920	26720	30200
150 Lb..Lbs.	13760	15580	19270	23420	27420	30900
Mechan.-Fired 125 Lb..Lbs.	12620	14230	17580	21270	24850	28220
150 Lb..Lbs.	12720	14430	17980	21770	25550	28920
Furn. Refrac. & Insulation..Lbs.	10150	10750	13250	16550	18700	19400

Kewanee Hi-Test Fusion Welded Series HT for High Pressure Steam in power or industrial process, burning any fuel.

A quick steaming, all-welded stress-relieved portable boiler, economical to handle.

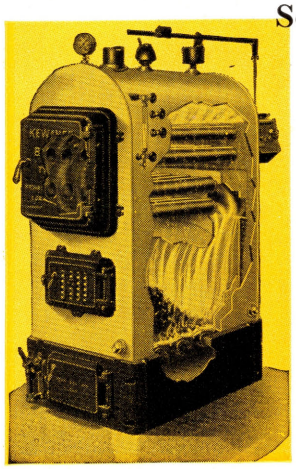
Refractory lined firebox and two-pass tubes keep the fuel bill down. Stocked in 6 sizes, 50 to 150 H.P. 125-lb. steam working pressure also 150-lb.



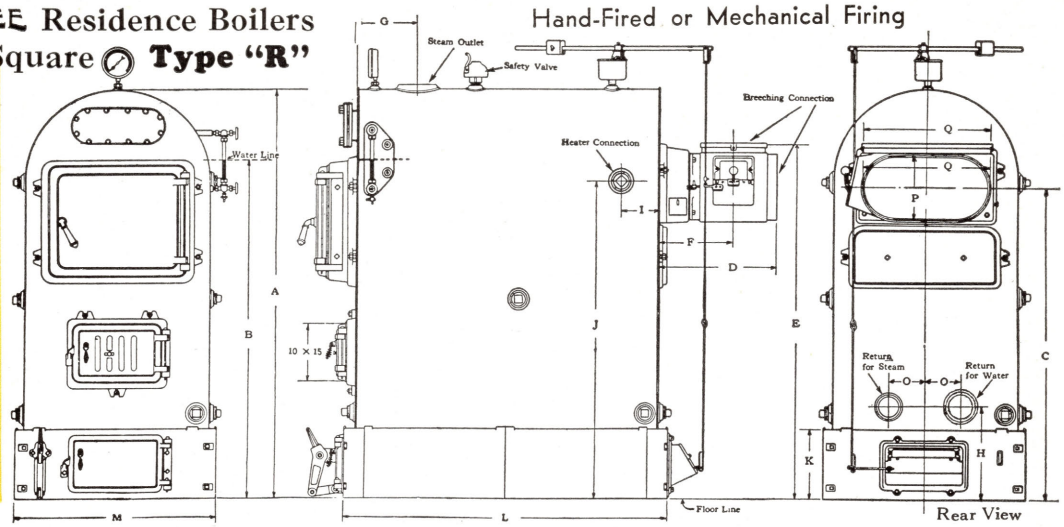
Hi-Test Series HT 150 lb.-- 150 H. P.

KEWANEE Residence Boilers
Square ◎ Type "R"

Hand-Fired or Mechanical Firing



Residence Square



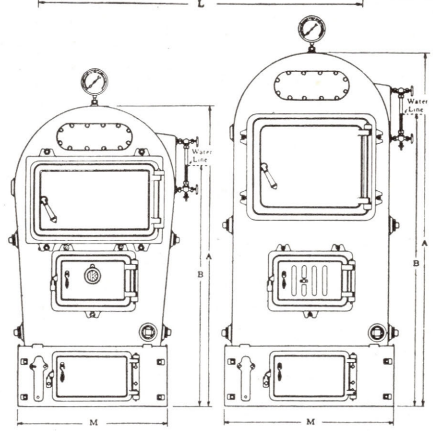
Rear View

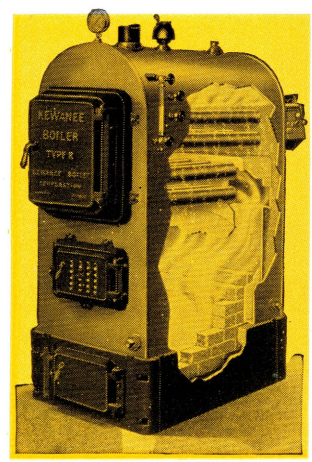
Type R Steel Boiler is a later Kewanee development employing characteristically sound steel construction in the compacted style of heating unit. It is designed to serve the smaller kind of building—such as garage, store, school, church, apartment, office or residence.

Every kind of solid fuel, coke, all grades of soft or hard coals and their briquette or powdered forms are burned with excellent success, also any liquid fuel oils, and natural or commercial gas can be used with high efficiency in Kewanee Type R Boilers.

Provision is made for Kewanee Hot Water Heating Coils to be fitted in all sizes.

Type R conforms to construction Code of A.S.M.E.





Data and Measurements — **Nos. 742 to 748—For Bituminous Coal. 2742 to 2748—Anthracite**

Number of Boiler	742–2742	743–2743	745–2745	746–2746	747–2747	748–2748
Boiler Rated Capacity—Steam...Sq. Ft.	790	1000	1350	1600	1780	1960
Water...Sq. Ft.	1260	1600	2160	2560	2850	3140
Btu. per Hour...1000's	190	240	324	384	427	470
Water Heater Rating—100° 3 hrs...Gal.	1100	1400	1800	2100	2400	2700
Heating Surface...Sq. Ft.	63	73	101	114	127	140
Grate Area...Sq. Ft.	4.8	5.6	6.7	7.8	8.8	9.9
Width of Boiler Shell...In.	31	31	30½	30½	30½	30½
Width of Boiler Overall...In.	32½	32½	32	32	32	32
Shell Length Overall...In.	39½	45½	45½	51½	57½	63½
Firebox Height...In.	21	21	24	24	24	24
Firebox Width x Length...In.	21¼x32	21¼x38	25¼x38	25¼x44	25¼x50	25¼x56
Steam or Water Outlet Size...In.	4	4	5	6	6	6
Steam Return Inlet Size...In.	2½	2½	3	3	3	3
Return Inlet Added for Water Size...In.	2½	2½	4	4	4	4
Safety Valve Opening Size...In.	1¼	1¼	1½	1½	1½	2
*A—Overall Height, Floor to Top of Shell...In.	59½	59½	70¼	70¼	70¼	70¼
**B—Height of Water-line...In.	48	48	58½	58½	58½	58½
Chimney—Diameter and Height...In. x Ft.	12x35	12x35	16x40	16x40	16x40	16x40
Breeching Diameter...In.	14	14	18	18	18	18
Breeching Connection Size, P x Q...In.	8½x17	8½x17	11x22	11x22	11x22	11x22
C—Height of End Breeching Connection Center...In.	49½	49½	54	54	54	54
D—Back of Boiler to End Breeching Connection...In.	17½	17½	20	20	20	20
E—Height of Breeching Connection...In.	55¾	55¾	61½	61½	61½	61½
F—Back of Boiler to Top Breeching Conn. Center...In.	11¼	11¼	12½	12½	12½	12½
G—Steam or Water Outlet Center to Boiler Front...In.	11	11	12	12	12	12
H—Height of Return Inlet Centers...In.	15¼	15¼	16	16	16	16
O—Return Inlet Offset from Boiler Center...In.	5	5	6	6	6	6
Heater Connection Size...In.	2	2	2	2	2	2
I—Heater Connection Center from Back of Boiler...In.	6½	6½	6½	6½	6½	6½
J—Heater Connection Height from Floor...In.	43¾	43¾	54¼	54¼	54¼	54¼
K—Height of Base...In.	12	12	12	12	12	12
L—Length of Base...In.	43½	49½	49½	55½	61½	67½
M—Width of Base...In.	30	30	34	34	34	34
Outside Surface to Cover, Unjacketed...Sq. Ft.	43	48	60	66	71	77
Approximate Total Weight, Unjacketed...Lb.	2150	2360	2800	3050	3300	3550

Nos. 1742 to 1748—For Oil or Gas. 0742 to 0748—Stoker

Number of Boiler	1742–0742	1743–0743	1745–0745	1746–0746	1747–0747	1748–0748
Boiler Rated Capacity—Steam...Sq. Ft.	840	1120	1470	1900	2160	2380
Water...Sq. Ft.	1340	1790	2350	3040	3460	3810
Btu. per Hour...1000's	202	269	353	456	518	571
Water Heater Rating—100° 3 hrs...Gal.	1200	1500	2000	2500	2800	3100
Furnace Volume...Cu. Ft.	10.9	13.0	16.5	19.0	21.6	24.2
Chimney—Diameter and Height...In. x Ft.	10x30	11x30	12x35	13x35	14x35	14x35
Breeching Diameter...In.	12	13	14	15	16	16
Number of Fire Brick	80	90	95	105	115	125
Approximate Total Weight, Unjacketed...Lb.	1900	2060	2500	2730	2920	3125

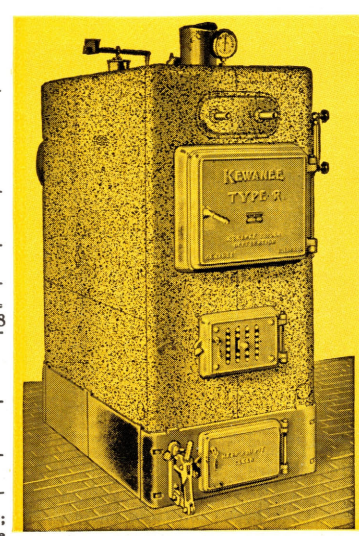
*For Jacketed Boiler, add 1½-inch to overall height.
**742, 1742 — 743, 1743 sizes, raise Water Line to 50½" for Single Coil, or Double Coil Instantaneous Flow; 51½" for Double Coil Storage Tank. 745, 1745 — 748, 1748 sizes, raise Water Line to 59½" for Single Coil, or Double Coil Instantaneous Flow; 60½" for Double Coil Storage Tank.

The two smaller size Square Type "R's" have tapered sides.

The four larger size Square Type "R's" have straight sides.

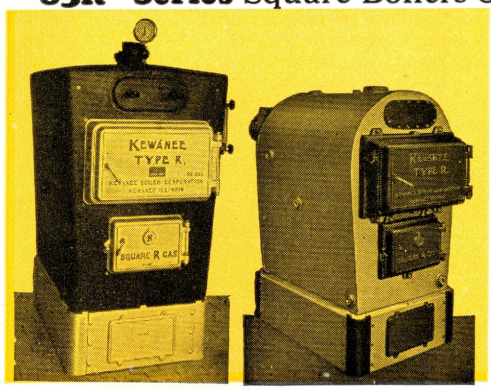
Firedoor for Coal and Stoker has air slides; Oil or Gas has peephole. All Square "R" Boilers have flanged box for fitting with Hot Water Coil.

For Oil or Gas fired Boilers the efficiency is increased 5% by the Spinner Blades, which are furnished as regular equipment in the 2-pass tubes. Steel base.

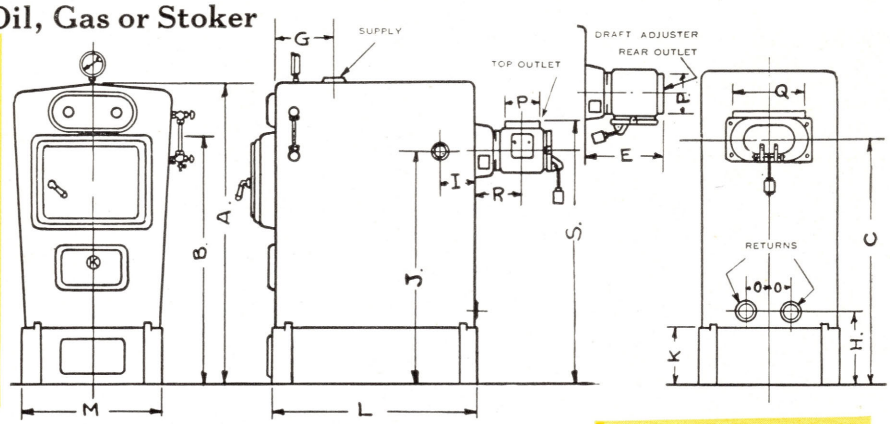


Square "R" Boiler With Jacket

"83R" Series Square Boilers Oil, Gas or Stoker



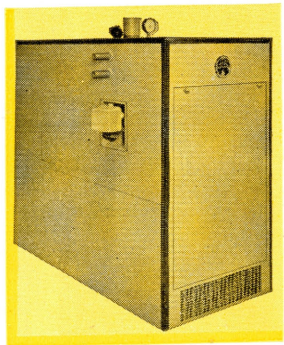
Square Jacketed Type "R" Steel Boiler



DATA AND MEASUREMENTS. 83R1-83R4 with Tapered Sides, 83R6-83R9 have Straight Sides

Boiler Number ... Oil or Gas / Stoker	83R1 O83R1	83R2 O83R2	83R3 O83R3	83R4 O83R4	83R6 O83R6	83R7 O83R7	83R8 O83R8	83R9 O83R9
Rated Capacity—Steam ... Sq. Ft.	901	1105	1326	1513	2091	2363	2652	2924
Water ... Sq. Ft.	1441	1768	2121	2420	3345	3780	4243	4678
Btu. per Hour ... 1000's	216	265	318	363	502	567	637	702
Heating Surface ... Sq. Ft.	53	65	78	89	123	139	156	172
Net Furnace Volume ... Cu. Ft.	6.6	8.8	10.9	13.0	16.5	19.0	21.6	24.2
Width Boiler Overall ... In.	32½	32½	32½	32½	32	32	32	32
A—Height Boiler Overall ... In.	60¾	60¾	60¾	60¾	71½	71½	71½	71½
Shell Length Overall ... In.	27½	33½	39½	45½	45½	51½	57½	63½
Firebox Height ... In.	21	21	21	21	24	24	24	24
Addn'l. Furnace Height for Stoker**. In.	4	4	4	4	6	6	6	6
Firebox Width ... In.	21¼	21¼	21¼	21¼	25¼	25¼	25¼	25¼
Firebox Length ... In.	20	26	32	38	38	44	50	56
*B—Water Line Height ... In.	48	48	48	48	58½	58½	58½	58½
C—Smoke Outlet End, Height ... In.	49½	49½	49½	49½	54	54	54	54
E—Smokehood Length ... In.	16	16	16	16	18½	18½	18½	18½
G—Steam Supply Location ... In.	12⅜	12⅜	12⅜	12⅜	13⅜	13⅜	13⅜	13⅜
H—Return Height ... In.	15¼	15¼	15¼	15¼	16	16	16	16
I—Heater Connection Location ... In.	7⅞	7⅞	7⅞	7⅞	7⅞	7⅞	7⅞	7⅞
J—Heater Connection Location ... In.	43¾	43¾	43¾	43¾	54¼	54¼	54¼	54¼
K and M—Base Height*** x Width ... In.	12x30	12x30	12x30	12x30	12x34	12x34	12x34	12x34
L—Base Length ... In.	31½	37½	43½	49½	49½	55½	61½	67½
O—Return Location ... In.	5	5	5	5	6	6	6	6
P—Breeching Connection Width ... In.	8½	8½	8½	8½	11	11	11	11
Q—Breeching Connection Length ... In.	17	17	17	17	22	22	22	22
R—Boiler to Smoke Outlet Center ... In.	9¾	9¾	9¾	9¾	11	11	11	11
S—Smoke Outlet Top, Height ... In.	55¾	55¾	55¾	55¾	61½	61½	61½	61½
Regal Jacket Overall 33½" wide, Length In.	59½	65½	71½	77½	.....	.....	.....	.....
Steam Supply Size, or Water ... In.	4	4	4	4	5	6	6	6
Steam Return Size ... In.	2½	2½	2½	2½	3	3	3	3
Added Return for Water ... In.	2½	2½	2½	2½	4	4	4	4
Safety Valve Size ... In.	1¼	1¼	1¼	1½	1½	1½	2	2
Heater Connection Size ... In.	2	2	2	2	2	2	2	2
Chimney Diameter x Height ... In. x Ft.	10x35	11x35	12x35	12x40	14x40	14x40	15x45	16x50
Breeching Diameter ... In.	12	13	14	14	16	16	17	18
Outside Surface to Cover, Unjacketed. Sq. Ft.	33	38	43	48	60	66	71	77
Shipping Weight, Jacketed ... Lbs.	1600	1800	2000	2200	2800	2900	3100	3300

*For 83R1 to 4 sizes, raise Water Line to 49" for Single Coil; 50" for Double Coil or Instantaneous Coil.
For 83R6 to 9 sizes, raise Water Line to 59" for Double Coil or Instantaneous Coil.
**When higher bases are used, height of Water Line B—is increased, also dimensions A—C—H—J—K—S—.
***Additional Height bases up to 21" furnished without extra cost.
For Stoker, Firedoor with air slots and baffle plate replaces Oil-Gas refractory insulated door with peephole.



Regal Smartline Jacket for Complete Enclosure with Any Oil or Gas Burner on 83R1-2-3-4

Also 1742-3, and GA-2R1-2-3-4.

Kewanee 83R Series is a Jacketed Square Type "R" Residence Boiler, of substantial steel construction, especially proportioned for Oil, Gas or Stoker, retaining in all respects the Kewanee standard of Quality.

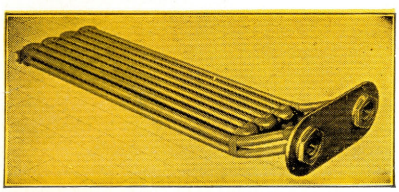
83R conforms to construction Code of A.S.M.E.

Has 2-pass tubes; with spinner blades for Oil-Gas; two-way draft adjuster; all steel base of new and improved design.

Covered Coil Box in front head for Kewanee Copper Coils of any capacity for Storage Tank Hot Water or Instantaneous Flow without Tank. Incinerator grates can be installed in larger sizes.

Stack Control Opening is provided in Rear Hood and in Front Smokebox Frame. Tapped openings either side of Boiler Shell can be used for Aquastat. There are plenty washout plugs in shell, and knock-out discs in Jackets opposite all Boiler openings. All Jacketed Kewanee Boilers have indestructible baked enamel steel Jacket, with insulation lining or blanket.

Kewanee Indirect Hot Water Heating Coils Maximum Length in Each Boiler



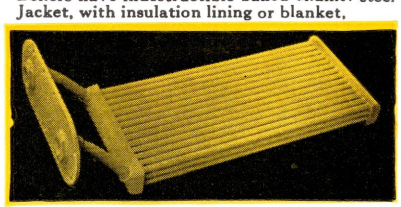
Kewanee Hot Water Coil for Storage Tank
S6-24 means Single row 6 pipes 24" long.
D8-60 means Double rows 8 pipes 60" long

Boiler ratings do not include allowances for heating domestic hot water with Indirect Coils.

All Coil capacity ratings are with Boiler Water at steaming temperature. For summer use, and intermittently fired fuels, use capacity listed with 180° Boiler Water.

For GRAVITY CIRCULATION with STORAGE TANK, capacity listed is the number of gallons raised 100° in 3hours. Allow ½ sq.ft. of steam radiation for each gallon capacity.

For INSTANTANEOUS TANKLESS PERFORMANCE, capacity listed is the number of gallons raised 100° in 1 hour. Allow 4 sq. ft. of steam radiation for each gallon capacity, except no allowance is required when water heating demand is less than 10 minutes in any hour.

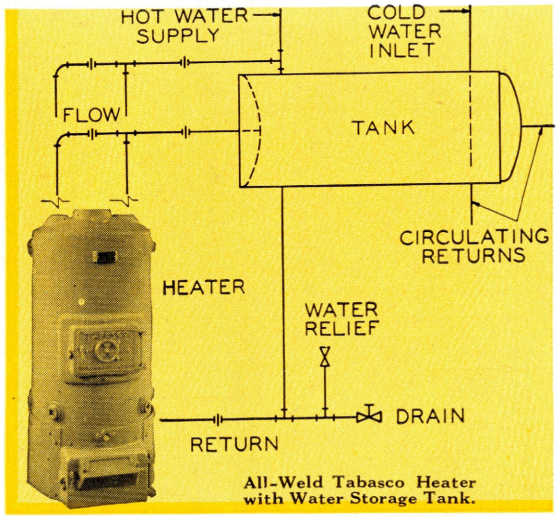


Coil for Instantaneous Flow without Tank.
TN1-Triple rows of pipes for 83R Boilers.
QN1-QN9 Quadruple rows of pipes, 83R Boilers.
DN1-DN9 Double rows for Sq. "R" Boilers.

For Storage Tank Operation				For Instantaneous Flow				For Storage Tank Operation				For Instantaneous Flow			
Boiler No.	Coil No.	Rated Capacity Gals. Heated 40°-140° 3 Hrs. in Boiler Water 212° F.	180° F.	Boiler No.	Coil No.	Rated Capacity Gals. Heated 40°-140° in 180° Boiler Water 1 Hr.	1 Min.	Boiler No.	Coil No.	Rated Capacity Gals. Heated 40°-140° 3 Hrs. in Boiler Water 212° F.	180° F	Boiler No.	Coil No.	Rated Capacity Gals. Heated 40°-140° in 180° Boiler Water 1 Hr.	1 Min.
742	S6-24	90	55	742	DN1	185	3.1	83R1	SL6-24	90	55	83R1	TN-1	185	3.1
	S8-24	120	70						SL8-24	120	70		QN-1	240	4.0
	D6-24	180	110						DL6-24	180	110				
	D8-24	240	145						DL8-24	240	145				
742	D8-30	320	190	742	DN2	240	4.0	83R2	DL8-30	320	190	83R2	QN-2	310	5.2
742	D8-36	400	240	742	DN3	295	4.9	83R3	DL8-36	400	240	83R3	QN-3	375	6.3
743; 773, 745	D8-42	480	290	743; 773, 745	DN4	350	5.8	83R4, 83R6	DL8-42	480	290	83R4, 83R6	QN-4	445	7.4
746, 774	D8-48	560	335	746, 774	DN7	400	6.7	83R7	DL8-48	560	335	83R7	QN-7	510	8.5
747, 775	D8-54	640	385	747, 775	DN8	450	7.5	83R8	DL8-54	640	385	83R8	QN-8	580	9.7
748	D8-60	720	430	748, 776	DN9	510	8.5	83R9	DL8-60	720	430	83R9	QN-9	650	10.8
776 to 790	D8-66 D8 120	800 1520	480 910	Larger sizes on application				For larger volume, two Storage Tank Coils may be installed in some boilers.							

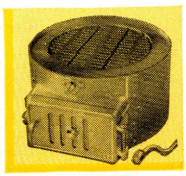
KEWANEE Tabasco Water Heaters

TABASCO Hot Water Heaters have been built for half a century in the same plant at Kewanee with the same expert care and of the same materials as Kewanee Steel Heating Boilers. The cut illustrates our new All-Weld Tabasco Water Supply Heater for extra-heavy service. In these welded models Kewanee offers a series of 10 for 100 pounds working pressure. Each tested in our shops to withstand a hydrostatic pressure of 200 lbs. per sq. in.



All-Weld Tabasco Heater with Water Storage Tank.

The shell and doors are extra substantial adding materially to the "expectation" of life. These All-Weld Tabasco Heaters are rated to heat 130 to 700 gallons of water raising its temperature **50° per hour,** which is twice as much as the usual heater output. Five wash-out plugs provide interior access for cleaning firepot top head as well as the bottom ring.

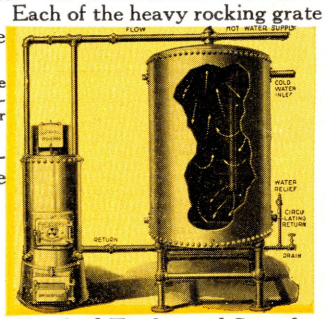

Tabasco Base with Rocking Grates

PIPING CONNECTIONS. For most favorable circulation the storage tank should be placed as high above the hot water flow outlet from the water heater as headroom permits. Circulation may be improved if a riser is piped from both top outlets of the heater to the flow line. The return may connect at back of heater or to any of the bottom openings. The hot water flow line from the heater may be connected to the storage tank either at the end or on top to increase the circulation head.

TABASCO STEEL BASE style is improved. Its construction is stouter. Ample clearance is maintained below the grates. Each of the heavy rocking grate bars is removable separately but cannot shake out.

The ash door accommodates any large scoop shovel. The base detail above shows the air slide adjustment for hand-controlled draft, but for automatic regulation a draft door with a flap is furnished as featured on base at left.

Tabasco All-Weld Water Heaters may connect directly to the water mains of any city in the United States.



Vertical Tanks and Stands Kewanee Extra Heavy Type S

Size In. Ft.	Capacity Gallons	Total Height Tank & Stand	Weight, Lbs. Tank	Weight, Lbs. Stand
36x5	265	7 ft. 2 in.	1000	160
42x5	360	7 ft. 3 in.	1300	180
48x5	470	7 ft. 4 in.	1500	200
54x5	590	7 ft. 5 in.	2000	220
60x5	730	7 ft. 6 in.	2400	250
60x5½	800	8 ft. 0 in.	2500	250
60x6	875	8 ft. 6 in.	2600	250

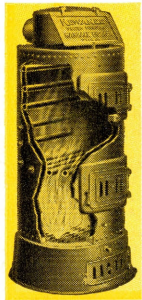
Specifications for Kewanee Extra Heavy All-Weld Tabasco Water Heaters

Heater No.	Water Heating Capac. Gallons Per Hour	Heater Size In.	Diam. Grate or Fire Pot In.	Total Height In.	Flow and Return Each In.	Size Clean-Out Plugs In.	Smoke Outlet Diam. In.	Outside Surface to Cover Sq. Ft.	Shipping Weight Lbs.	Firedoor Opening Height x Width Inches In Shell	Firedoor Opening Height x Width Inches In Frame	Base Diam. In.	Grate Area Sq. Ft.
017	130	17⅞x32	13¼	46	Two-1½	Five-1½	6	12	450	8 x 7½	8x10	18¾	0.96
018	165	17⅞x36	13¼	50	Two-1½	Five-1½	6	14	480	8 x 7½	8x10	18¾	0.96
021	210	21 x30	15⅛	44	Two-1½	Five-1½	6	14	550	8 x 7¾	8x10	21⅞	1.25
022	250	21 x36	15⅛	50	Two-1½	Five-1½	6	17	600	8 x 7¾	8x10	21⅞	1.25
025	300	25¼x36	20⅛	50	Two-2	Five-2	8	21	710	9¼x10¼	9x12½	26⅛	2.1
026	350	25¼x42	20⅛	56	Two-2	Five-2	8	24	765	9¼x10¼	9x12½	26⅛	2.1
027	400	25¼x48	20⅛	62	Two-2	Five-2	8	27	830	9¼x10¼	9x12½	26⅛	2.1
030	500	30⅞x42	24⅜	56	Two-2½	Five-2	8	29	1050	9¼x10½	9x12½	31⅞	3.2
031	600	30⅞x48	24⅜	62	Two-2½	Five-2	8	33	1160	9¼x10½	9x12½	31⅞	3.2
032	700	30⅞x54	24⅜	68	Two-2½	Five-2	8	40	1300	9¼x10½	9x12½	31⅞	3.2

All above ratings are based on raising temperature of water 50 degrees in one hour.

Kewanee Water Heating Garbage Burners

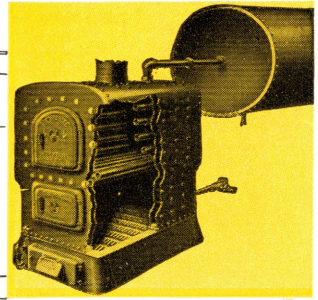
Kewanee Water Heating Garbage Burners are built of riveted steel for working pressure 100 & 125 pounds per square inch, to withstand any city water pressure without cracking or bursting. They eliminate unpleasant features of accumulated garbage in such buildings as apartments, clubs, sanitariums, hotels, restaurants, save the expense of its removal, and in producing hot water by incineration cut the fuel bill of an ordinary heater in half. The operation is very simple. A small fire is started on the lower grates, and the garbage thrown into the upper chamber in any quantity; even when filled, the garbage is dried to a combustible condition in a short time by means of the patented By-Pass and burns without odor, leaving only a small amount of ash. These burners will produce the best results when hot water storage tank attached has a capacity of 50 per cent greater than the hourly heating capacity of the burner.


Type A

Kewanee Water Heating Garbage Burner—Type A—Specifications

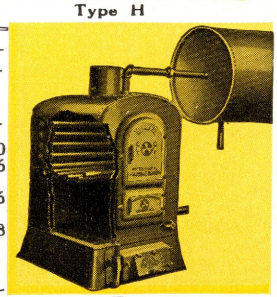
Catalog Number	30	31	32	33
Capacity gallons per hour, 50 degrees raise	200	300	400	600
Capacity garbage chamber, one charge....Bushels	1	2	3	4
Water Working Pressure....Pounds	125	125	125	100
Height over all....Inches	62	68	68	68
Diameter of floor space required....Inches	22	25	30	36
Height to bottom of front garbage door....Inches	33	37	37	39
Dimensions of garbage door....Inches	7x8	7x8	7x8	9x12
Dimensions of coal fire doors....Inches	7x8	7x8	7x8	9x12
Diameter of coal or lower grates....Inches	12	16	20	24
Size, flow and return flanges, two each....Inches	1½	2	2	2
Diameter, smoke pipe....Inches	6	8	8	8½
Outside surface to cover....Sq. Ft.	13	19	23	28
Approximate shipping weight....Pounds	730	970	1190	1640

Above ratings all based on raising temperature of water 50 degrees in one hour.


Type H

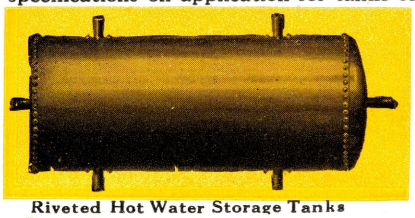
Catalog Number	Type D 34	35	36	37	38	39	40	Type H 41	42	43	44	45
Cap., gal. per hour 50 degrees raise	500	600	800	1000	1200	1500	1800	1200	1500	1800	2200	2600
Cap., garbage chamber, one charge bu	2	3	4	5	7	9	12	6	8	9	11	12
Water Working Pressure....Pounds	100	100	100	100	100	100	100	100	100	100	100	100
Height over all....Inches	57	57	57	57	57	57	57	65	65	65	65	65
Dimensions of floor space required....Inches	29x29	29x35	35x35	35x41	35x47	41x53	41x59	38x36	38x42	38x48	38x54	38x60
Dimensions over all....Inches	26x26	26x32	32x32	32x38	32x44	38x50	38x56	38x32	38x38	38x44	38x50	38x56
Height to bottom of garbage door....Inches	32	32	31	31	31	31	31	37	37	37	37	37
Dimensions of garbage door....Inches	14x16	14x16	16x16	16x16	16x16	16x16	16x16	16x16	16x16	16x16	16x16	16x16
Dimensions of coal or fire door....Inches	14x10	14x10	16x10	16x10	16x10	16x10	16x10	16x8	16x8	16x8	16x8	16x8
Dimensions of lower or coal grates....Inches	18x18	18x24	24x24	24x30	24x36	30x42	30x48	24x24	24x30	24x36	24x42	24x48
Size, flow and ret'n flanges, one each, In.	2	2	2½	2½	2½	3	3	3	3	4	4	4
Diameter of smoke pipe....Inches	9	9	10	10	10	12	12	10	10	10	12	12
Outside surface to cover....Sq. Ft.	29	34	42	47	52	62	67	53	58	64	70	76
Approximate shipping weight....Pounds	1650	1800	2100	2320	2550	3100	3320	2620	2820	3020	3450	3700

Above ratings all based on raising temperature of water in storage tank 50 degrees in one hour.

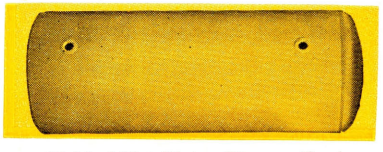

Type D

KEWANEE Steel Tanks, Riveted and Welded

Standard Water Storage Tanks are tested to 115 pounds hydrostatic pressure. For use where working pressure does not exceed 75 pounds. Can be used either horizontally or vertically. Manholes, handholes, and coils furnished only when ordered. Extra Heavy Tanks are tested to 150 pounds hydrostatic pressure, for use where working pressure does not exceed 100 pounds. Prices and specifications on application for tanks of any size for every purpose and pressure, both plain and galvanized. All Kewanee Black Steel Tanks are furnished with preservative coating of Aluminum spray paint.



Riveted Hot Water Storage Tanks



Welded Hot Water Storage Tanks

Standard and Extra Heavy				Approx. Ship. Wt., Lbs.				Standard and Extra Heavy				Approx. Ship. Wt., Lbs.			
				Riveted		Welded						Riveted		Welded	
Capacity Gals.	Size, In. Ft.	Openings In.	Size Coil Pipe, In.	Std.	Ex. Hvy.	Std.	Ex. Hvy.	Capacity Gals.	Size, In. Ft.	Openings In.	Size Coil Pipe, In.	Std.	Ex. Hvy.	Std.	Ex. Hvy.
66	20x4	1½	4–1	270	.....	230	.....	430	42x6	2	4–1½	890	1140	820	990
85	20x5	1½	4–1	310	.....	280	.....	500	42x7	2	4–1½	980	1260	910	1100
100	24x4	1½	4–1¼	330	.....	290	.....	575	42x8	2	4–1½	1070	1400	1000	1210
120	24x5	1½	4–1¼	380	390	340	340	720	42x10	2	4–1½	1250	1660	1180	1430
140	24x6	1½	4–1¼	440	450	390	390	865	42x12	2	4–1½	1430	1910	1360	1650
150	30x4	2	4–1¼	430	.....	390	.....	1000	42x14	2	4–1½	1620	2180	1540	1870
180	30x5	2	4–1¼	500	520	450	470	750	48x8	3	.....	.....	1690	.....	.....
220	30x6	2	4–1¼	560	590	520	530	940	48x10	3	.....	.....	1960	.....	.....
250	30x7	2	4–1¼	630	660	580	590	1130	48x12	3	.....	.....	2250	.....	.....
295	30x8	2	4–1¼	700	720	640	660	1300	48x14	3	.....	.....	2570	.....	.....
315	36x6	2	4–1½	700	920	650	790	1500	48x16	3	.....	.....	2860	.....	.....
365	36x7	2	4–1½	780	1030	720	880	1700	48x18	3	.....	.....	3150	.....	.....
420	36x8	2	4–1½	870	1160	800	980								
525	36x10	2	4 1½	1030	1380	950	1170								

Kewanee Pressure and Storage Tanks

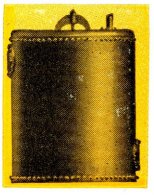
These tanks can be built for all purposes and pressures, and of any size. In making inquiry for prices and specifications, always give the pressure to be carried, purpose for which tank is to be used, and number of gallons capacity. Tanks listed below are for pressures up to 100 pounds

Size Tanks In. Ft.	Thickness of Shell Inches	Thickness of Head Inches	Weight Pounds	Capacity Gallons	Size Tanks In. Ft.	Thickness of Shell Inches	Thickness of Head Inches	Weight Pounds	Capacity Gallons	Size Tanks In. Ft.	Thickness of Shell Inches	Thickness of Head Inches	Weight Pounds	Capacity Gallons
48x 8	¼	7/16	1700	750	54x16	5/16	7/16	4300	1890	72x24	5/16	½	8500	5090
48x10	¼	7/16	2000	940	54x20	5/16	7/16	5200	2360	72x28	5/16	½	9700	5940
48x12	¼	7/16	2300	1130	54x24	5/16	7/16	6000	2840	72x32	5/16	½	10800	6780
48x14	¼	7/16	2600	1300	60x20	5/16	7/16	5900	2920	72x36	5/16	½	11900	7630
48x16	¼	7/16	2900	1500	60x24	5/16	7/16	6900	3470	84x28	5/16	½	11800	8070
48x18	¼	7/16	3200	1700	60x28	5/16	7/16	7800	4090	84x32	5/16	½	13200	9220
48x20	¼	7/16	3500	1880	60x32	5/16	7/16	8700	4670	84x36	5/16	½	14500	10370
48x24	¼	7/16	4100	2260	60x36	5/16	7/16	9800	5260	96x30	⅜	⅝	17200	11250
54x14	5/16	7/16	3900	1660	72x20	5/16	½	7400	4240	96x36	⅜	⅝	20000	13500

Kewanee Gravel Basins and Blow-Off Receivers

Diameter Inches	Height Inches	Thickness of Shell Inches	Thickness of Head Inches	Capacity Gallons	Weight Pounds
20	24	¼	5/16	34	360
24	24	¼	5/16	47	400
30	24	¼	5/16	73	500
30	30	¼	5/16	90	550
36	30	¼	5/16	130	680
36	36	¼	5/16	160	740
36	48	¼	5/16	210	850

Flanges of any size located to suit purchaser.

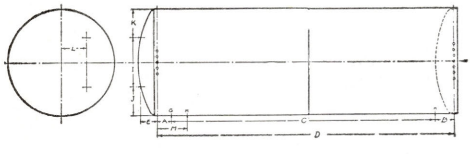


Kewanee Pneumatic Tanks

Built for 75 pounds water working pressure Horizontal seam is lap joint, double riveted, all rivet holes reamed to full size. Openings in shell are reinforced and threaded. Prices for any size plain or galvanized on application. We have a complete stock of plain tanks on hand.

Size	Approx. Weight Pounds	Size	Approx. Weight Pounds	Size	Approx. Weight Pounds
24x 5	390	36x 6	730	42x12	1880
24x 6	440	36x 8	890	42x14	2150
24x10	660	36x10	1050		
		36x12	1200	48x10	1930
30x 6	590	36x14	1380	48x14	2540
30x 8	720			48x16	2830
30x10	850	42x 8	1370	48x20	3440
		42x10	1630	48x24	4020

Tappings for Horizontal Pneumatic Tanks

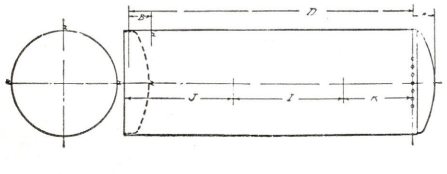


All sizes in inches.

We are prepared to furnish all sizes of tanks as shown at right for vertical installation. Tanks over 6 feet are tapped for 2 gauge glasses.

Size	A	B	C	D	E	G	H	I	J	K	L	M
24x 5	5½	6	46	57½	4½	1	1	15¼	4⅜	4⅜	6	....
24x 6	5½	6	58	69½	4½	1	1	15¼	4⅜	4⅜	6	....
24x10	5½	6	104	115½	4½	1	1	15¼	4⅜	4⅜	6	....
30x 6	5½	6	58	69½	5½	1	1	15¼	7⅜	7⅜	6	....
30x 8	5½	6	80	91½	5½	1	1	15¼	7⅜	7⅜	6	....
30x10	5½	6	104	115½	5½	1	1	15¼	7⅜	7⅜	6	....
36x 6	5½	6	58	69½	6½	1¼	1¼	15¼	10⅜	10⅜	8	10
36x 8	5½	6	80	91½	6½	1¼	1¼	15¼	10⅜	10⅜	8	10
36x10	5½	6	104	115½	6½	1¼	1¼	15¼	10⅜	10⅜	8	10
36x12	5½	6	128	139½	6½	1¼	1¼	15¼	10⅜	10⅜	8	10
36x14	5½	6	149	160½	6½	1¼	1¼	15¼	10⅜	10⅜	8	10
42x 8	6	7½	79½	93	7	1½	1½	19¼	11⅜	11⅜	10	11¾
42x10	6	7½	101½	115	7	1½	1½	19¼	11⅜	11⅜	10	11¾
42x12	6	7½	125½	139	7	1½	1½	19¼	11⅜	11⅜	10	11¾
42x14	6	7½	149½	163	7	1½	1½	19¼	11⅜	11⅜	10	11¾
48x10	6	7½	101½	115	7½	2	2	25¼	11⅜	11⅜	12	11¾
48x14	6	7½	149½	163	7½	2	2	25¼	11⅜	11⅜	12	11¾
48x16	6	7½	173½	187	7½	2	2	25¼	11⅜	11⅜	12	11¾
48x20	6	7½	218½	232	7½	2	2	25¼	11⅜	11⅜	12	11¾
48x24	6	7½	266½	280	7½	2	2	25¼	11⅜	11⅜	12	11¾

Tappings for Vertical Pneumatic Tanks



Size	B	D	E	H	I	J	K
24x5	6	57½	4½	1	19¼	23¾	15¾
24x6	6	69½	4½	1	25¼	29½	15¾
30x6	6	69½	5½	1	25¼	29½	15¾
36x6	6	69½	6½	1	25¼	29½	15¾

All sizes in inches.

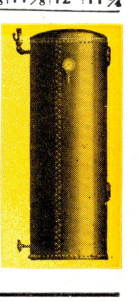
Kewanee Air Receivers

Shell seams are lap joints, double riveted; circular seams single riveted. Heads dished to a radius equal to diameter of shell. Tested to 165 pounds hydrostatic pressure. Safe and tight under 110 pounds working pressure. Receivers larger than 36 inches in diameter are regularly made with manhole.

Prices for any size or capacity on application.

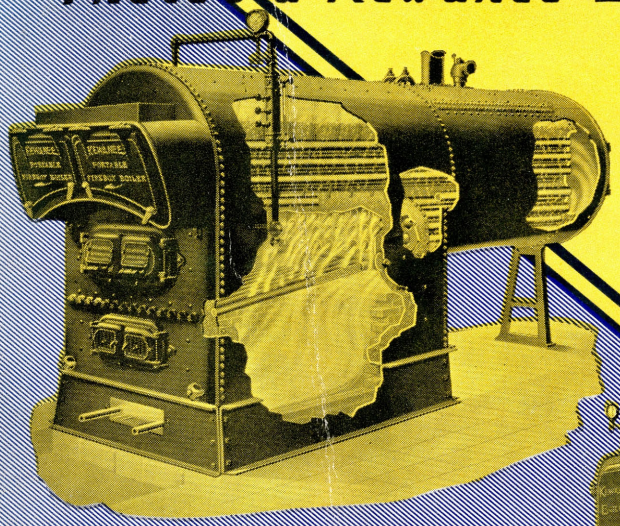
Size	Capacity Cubic Feet	Shell Thickness Inches	Heads Thickness Inches	Inlet and Outlet Inches	Safety Valve Inches	Drain	Floor to Outlet Ft.	Floor to Outlet In.	Floor to Inlet Inches	Weight Pounds
20x 5	11	5/16	¼	1½	1	½	3	9	15	310
24x 6	19	5/16	¼–5/16	2	1	½	4	9	15	430
30x 5	24	¼	5/16	2½	1¼	1	3	9	15	660
30x 8	39	¼	5/16	2½	1¼	1	6	6	18	935
36x 6	42	¼	5/16–⅜	2½	1¼	1	4	6	18	1140
42x 8	77	¼	5/16–⅜	3	1½	1	6		18	1860
42x12	115	¼	5/16–⅜	3	1½	1	9	6	24	2480
48x 8	100	5/16	⅜–7/16	3	1½	1	6		18	2165
54x14	223	5/16	⅜–½	6	2½	1	11	6	24	4420

For A. S. M. E. specifications bottom is convex instead of concave as shown.

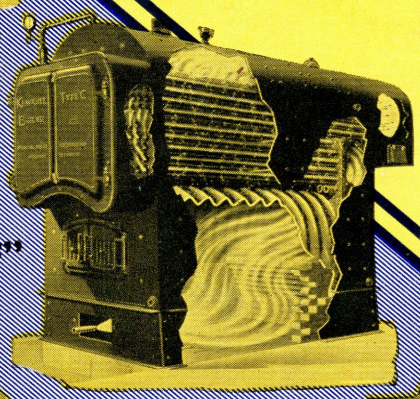


There's a Kewanee Boiler Built for every Building

KEWANEE
Steel BOILERS
—growing by serving

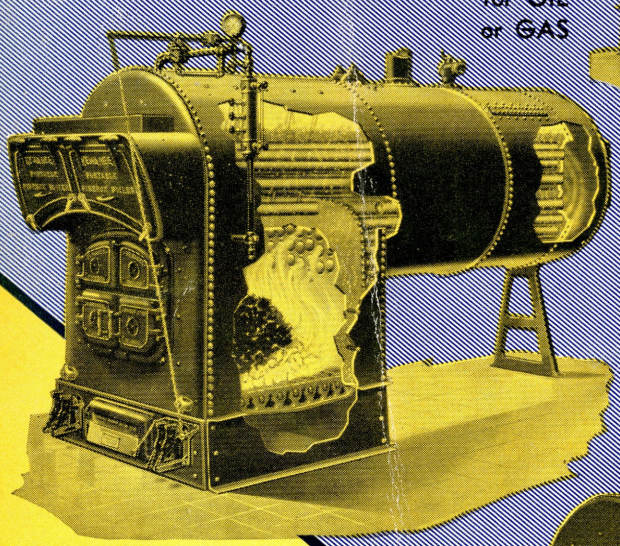


"300" for OIL or GAS



Type "C" for OIL or GAS

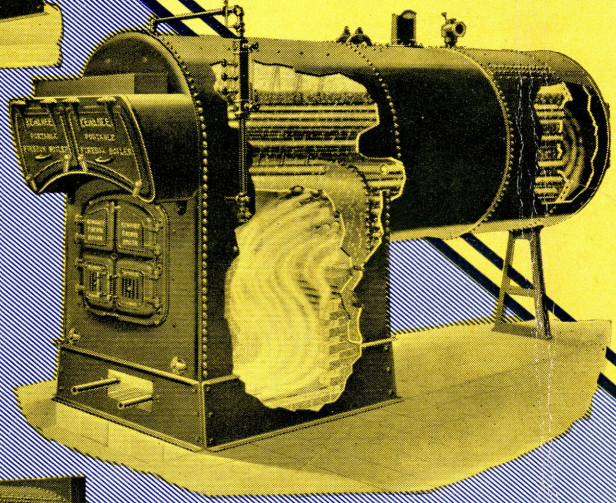
Square "R" Stoker-Fired



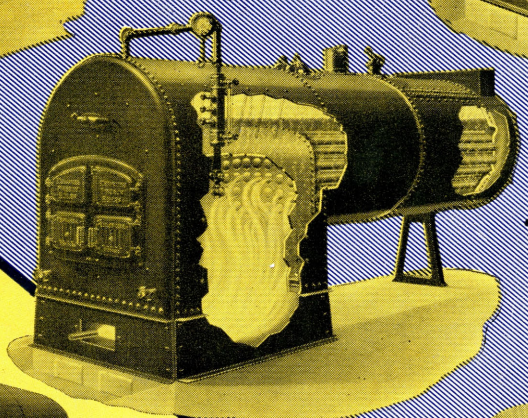
"500" for COAL Hand-Fired

KEWANEE

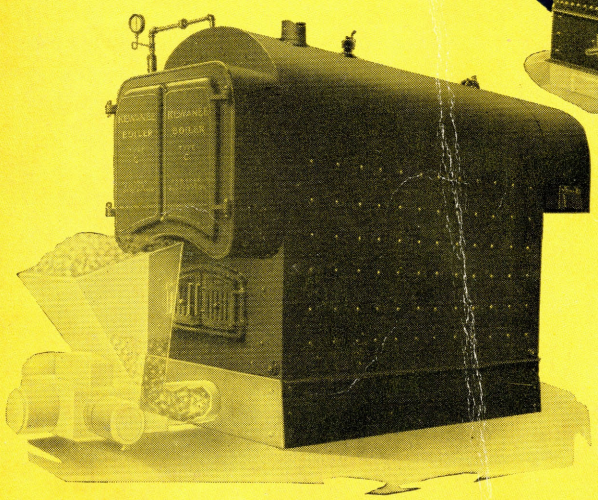
CUTS FUEL COSTS



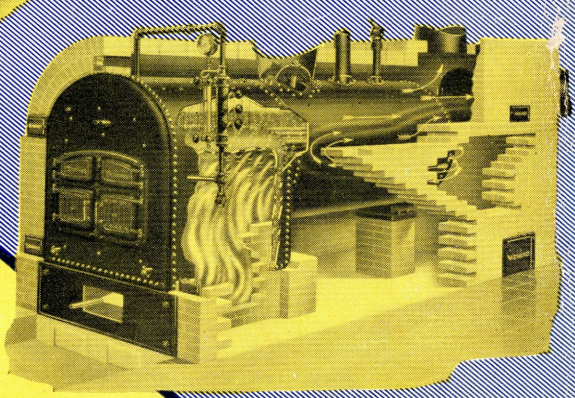
"400" for OIL or GAS



Type "K" for OIL or GAS



Type "C" for STOKER



"Brickett" for OIL or GAS

KEWANEE BOILER CORPORATION

KEWANEE, ILLINOIS

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Eastern District Office,
40 West 40th Street. New York City

Division of AMERICAN Radiator and "Standard" Sanitary Corporation